

California Regional Water Quality Control Board
Santa Ana Region

August 22, 2003

ITEM: 16

SUBJECT: Vessel Sewage Disposal Program for Newport Bay and Huntington Harbour

Discussion:

On May 16, 2003, the Santa Ana Regional Water Quality Control Board (Regional Board) conducted a public workshop to review staff's recommendations for a vessel sewage disposal program for Newport Bay and Huntington Harbour. The May 16, 2003 staff report provided information describing the federal and state regulations and guidelines pertaining to vessel sewage waste and the adequacy of the current vessel sewage disposal program in Newport Bay and Huntington Harbour. The report also outlined preliminary recommendations for a Vessel Sewage Disposal Program for these waterbodies. (This report served as a preliminary Pump-out Facilities Need Report.) Staff recommended that the Regional Board request the State Water Resources Control Board (State Board) to require certain vessel terminal operators to install pump-out facilities and dump stations. In addition, staff recommended that the Regional Board request that the State Board action include requirements for operation, maintenance and public education activities related to vessel sewage disposal systems.

The comments provided at or prior to the May 16, 2003 workshop are summarized in Attachment C, together with Board staff's response. In addition to the comments received at and prior to the workshop, Board staff met with vessel terminal owners, staff of the cities of Huntington Beach and Newport Beach and Orange County to discuss the proposed vessel sewage disposal program. Based on all comments received, staff have revised the proposed Vessel Sewage Disposal Program. The revised program is shown below in the attachment to Resolution No. R8-2003-0074 (specifically, Attachment A to the Pump-out Facilities Need Report). For ease of review, changes to the May 16, 2003 proposed Vessel Sewage Disposal Program are shown in underline/strikeout format. Resolution No. R8-2003-0074 requests that the State Board require implementation of the recommendations of the proposed Vessel Sewage Disposal Program for specific vessel terminal owners/operators, the cities of Huntington Beach and Newport Beach and the County of Orange to install, operate and/or maintain pump-out stations and dump stations in Newport Bay and Huntington Harbour.

Staff Recommendation:

1. Staff recommends that the Regional Board adopt Resolution No. R8-2003-0074, adopting the pump-out facility need delineated in the Pump-out Facility Need Report attached to the Resolution, and requesting the State Board to 1) require the installation of additional pump-out facilities and dump stations in Newport Bay and Huntington Harbour at locations specified in the recommended Vessel Sewage Disposal Program, and 2) require the implementation of appropriate operation, maintenance, and public education programs as described in the recommended Program. Adoption of the Resolution would result in rescission of Orders No. 88-83, 88-84, 88-85, 88-89, 88-91, prior pump-out related orders adopted by the Regional Board, upon State Board adoption of requirements necessary to implement the recommended Vessel Sewage Disposal Program.

California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. R8-2003-0074

Requesting that the State Water Resources Control Board Require
the Implementation of a Vessel Sewage Disposal Program in Newport Bay and
Huntington Harbour, including the Installation of Pump-out Facilities and Dump Stations
at Specified Vessel Terminals and
Rescinding Orders No. 88-83, 88-84, 88-85, 88-89, 88-91

WHEREAS the California Regional Water Quality Control Board, Santa Ana Region
(hereinafter Regional Board), finds that:

1. The Clean Vessel Act prohibits the discharge of sewage into No Discharge Zone waters.
2. Newport Bay and Huntington Harbour were designated as No Discharge Zone waters by the U.S. Environmental Protection Agency in 1976. At that time, there was an appropriate number of pump-out facilities in Newport Bay and Huntington Harbour. Since that time, there has been an increase in the number of vessels using both harbors.
3. In 1988, the Regional Board found that the vessel waste program in Newport Bay was inadequate and thus adopted Orders No. 88-83, 88-84, 88-85, 88-89, 88-91 requiring the installation and operation of pump-out stations at specified terminals.
4. Water contact recreation (REC1) is one of the beneficial use designations specified in the 1995 Water Quality Control Plan (Basin Plan) for Huntington Harbour. Water contact recreation (REC1) and shellfish harvesting (SHEL) are among the beneficial use designations specified in the Basin Plan for Newport Bay. The Basin Plan specifies numeric water quality objectives for fecal coliform bacteria in order to protect these designated beneficial uses of Huntington Harbour and Newport Bay. Discharges of sewage from vessels adversely affect these beneficial uses and may cause or contribute to violation of the fecal coliform objectives.
5. In 1994, Newport Bay was listed on the 303(d) list of impaired water bodies due to bacterial contamination. In 1998, the Regional Board established the Newport Bay Fecal Coliform total maximum daily load (TMDL) to address the bacterial contamination. The TMDL includes a zero waste load allocation for vessel waste discharges, in recognition of the No Discharge Zone status of the Bay.
6. In 1994, Huntington Harbour was listed on the 303(d) list of impaired water bodies due to bacterial contamination. No bacteria TMDL has yet been established for Huntington Harbour. Once established, the TMDL is expected to include a zero waste load allocation for vessel waste discharges, in light of the No Discharge Zone status of Huntington Harbour.

7. California Harbors and Navigation Code Section 776 provides the authority to the State Water Resources Control Board (State Board) to require vessel terminal owners/operators to provide adequate vessel sewage retention device pump-out capability at locations that are convenient to the vessel users. Title 23, Chapters 20 and 20.1 of the California Code of Regulations implements the Harbors and Navigation Code requirements for vessel sewage waste.
8. Title 23, Article 2, Chapter 20.1, Sections 2833 through 2835 require the Regional Board to determine if there is a need for additional pump-out stations and dump stations. If there is found to be a need, the Regional Board is to request that the State Water Resources Control Board require specified vessel terminals to install and operate the pump-out and dump stations where necessary to protect water quality. The Regional Board is also required to provide a list of the existing vessel terminals in the area being considered for additional pump-out facilities and dump stations, whether these vessel terminals are privately owned or publicly owned, whether they are for private or public use, and the locations of existing pump-out stations and dump stations.
9. In October 2002, the Orange County CoastKeeper conducted a survey of the pump-out facilities in Huntington Harbour and Newport Bay and found significant deficiencies. Problems noted included inoperable pump-out facilities, poor housekeeping, and little or no access to the existing pump-out facilities.
10. On March 19, 2003, Regional Board staff surveyed several of the pump-out stations surveyed in the CoastKeeper study. Board staff noted similar deficiencies.
11. Based on these surveys and consideration of relevant federal and state guidelines, Board staff has prepared a Pump-out Facilities Need Report (Report) (Attachment to this Resolution). The Report lists the existing publicly and privately-owned vessel terminals in Newport Bay and Huntington Harbour; specifies whether these vessel terminals are for public and/or private use; and, identifies the locations of existing pump-out stations. (There are no existing dump stations in either Newport Bay or Huntington Harbour.) The Report describes the observed deficiencies in the vessel sewage disposal program in both waterbodies and specifies a recommended Vessel Sewage Disposal Program (Attachment A to the Report).
12. Based on the findings of the Report, three additional pump-out stations and three dump stations are necessary in Huntington Harbour; seven additional pump-out stations and three dump stations are necessary in Newport Bay. The locations of the needed pump-out and dump stations are specified in the recommended Vessel Sewage Disposal Program. Further, to ensure the success of the vessel sewage waste program in Huntington Harbour and Newport Bay, vessel terminal owners/operators and/or responsible agencies must implement an operation, maintenance, public education and outreach program. The installation and maintenance of these facilities are necessary to protect REC-1 and SHEL beneficial uses in Newport Bay and Huntington Harbour.

13. It is appropriate to request that the State Board adopt requirements necessary to implement the recommended Vessel Sewage Disposal Program.
14. Upon State Board adoption of requirements necessary to implement the recommended Vessel Sewage Disposal Program, it is appropriate to rescind Regional Board Orders No. 88-83, 88-84, 88-85, 88-89, 88-91.
15. The California Department of Boating and Waterways administers the Clean Vessel Act Pump-out Grant Program to reimburse recipients for up to 75% of the installed cost of pump-out stations and dump stations. The grant is available to the private sector and public sector.
16. The Regional Board held public workshops on May 16, 2003 and August 22, 2003 to solicit comments regarding staff's recommendations for additional pump-out facilities, the need for dump stations and the operation, maintenance, public education and outreach and monitoring program specified in the Pump-out Facilities Need Report. Board staff also had extensive discussions with interested agencies and parties, who provided comments leading to modification of the recommended Vessel Sewage Disposal Program.

THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board approves the pump-out facility need delineated in the Pump-out Facility Need Report attached to this Resolution.
2. The Regional Board requests that the State Water Resources Control Board (State Board) adopt requirements implementing the recommended Vessel Sewage Disposal Program shown in Attachment A to the Pump-out Facilities Need Report. This includes requirements for the installation of additional vessel waste disposal facilities at specified vessel terminals and the implementation by responsible parties and agencies of specified operation, maintenance, public education and outreach, and monitoring programs.
3. The Regional Board requests that the State Board consider this request at its earliest possible opportunity.
4. Orders No. 88-83, 88-84, 88-85, 88-89, 88-91, are rescinded upon State Board adoption of requirements necessary to implement the recommended Vessel Sewage Disposal Program.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on August 22, 2003.

Gerard J. Thibeault
Executive Officer

Pump-Out Facilities Need Report

Introduction

The Harbors and Navigation Code (Chapter 6, Division 3) provides the statutory authority for the State Water Resources Control Board (State Board), in coordination with Regional Water Quality Control Boards (Regional Boards), to develop and adopt regional standards and require installation of sewage disposal facilities at vessel terminals. Vessel terminals are defined in the Harbors and Navigation Code as any private or shore-side installation on any waters of the state that provides mooring, docking, berthing, and other facilities for the use of vessels. The California Code of Regulations (Title 23, Chapters 20 and 20.1) contains standards establishing criteria for the design, construction, operation, and maintenance of pump-out stations and dump stations¹ (Sections 2815 through 2829), and specifies administrative procedures to be followed to provide a standard method of determining which vessel terminals shall be required to install and operate these facilities (Sections 2833 through 2835).

To determine the need for and require the implementation of pump-out stations and dump stations, the Regional Boards and State Board are required to do the following:

- a. Based on consideration of a number of factors that are described below, the Regional Board determines a need for additional pump-out stations and dump stations within its Region, and prepares a Notice of Public Hearing to adopt the Pump-out Facility Need.
- b. The Regional Board requests the State Board to require specified vessel terminals to install and operate the pump-out stations and dump stations where necessary to protect water quality. Once the State Board receives the Regional Board request, the State Board may conduct its own public hearing upon its own motion or at the request of any interested person. A public hearing is required under certain circumstances (see “c.” below). After consideration of the Regional Board request and the record of any Regional Board or State Board hearing, the State Board may issue an order requiring vessel terminals to install and operate vessel waste pump-out stations and dump stations. The order would include an implementation schedule.
- c. If the Regional Board determines that there is no public vessel terminal within an area in which additional pump-out stations and/or dump stations are needed, the State Board is required to hold a hearing to determine whether private vessel terminals should be designated to provide pump-out stations and dump stations. Based on the determinations made at that hearing, the State Board may issue an order requiring installation and operation of pump-out stations and dump stations

¹ A dump station is an upland waste reception facility specifically designed to receive waste from portable toilets carried on vessels or from floating restrooms in the water that are not connected to the land and are used solely by boaters. This does not include upland restroom facilities. (Federal Register Vol. 59 No. 47 pp. 11296)

to the private vessel terminal owner(s), as appropriate. Again, the order would include an appropriate time schedule.

This Pump-out Facilities Need Report summarizes staff's review of the adequacy of the vessel sewage discharge program in the Region and provides recommended actions for the Regional Board and State Board to take in order to improve the vessel sewage discharge program in the Santa Ana Region. The recommended Vessel Sewage Disposal Program is delineated in Attachment A to this report.

Background

Water contact recreation (REC1) is one of the beneficial uses of Huntington Harbour as identified in the 1995 Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). Water contact recreation (REC1) and shellfish harvesting (SHEL) are among the beneficial uses of Newport Bay specified in the Basin Plan. The Basin Plan specifies the following numeric criteria for fecal coliform for the protection of shellfish harvesting and water contact recreation:

REC-1 Fecal coliform: log mean less than 200 organisms/100 mL based on five or more samples/30 day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period

SHEL Fecal coliform: median concentration not more than 14 MPN (most probable number)/100 mL and not more than 10% of samples exceed 43 MPN/100 mL.

In 1988, the Regional Board adopted Resolution No. 88-89 and Orders No. 88-83, 88-84, 88-85 and 88-91. Resolution No. 88-89 approved a vessel pump-out program for Newport Bay and the other orders required certain vessel terminals to install vessel pump-out stations. These orders were neither waste discharge requirements nor enforcement actions, and no follow-up was done to determine compliance. Currently, these orders and the resolution are active and would need to be rescinded prior to any action by the State Board.

Both Huntington Harbour and Newport Bay have been designated as No Discharge Zones (NDZs) by the US Environmental Protection Agency (EPA). A NDZ is an area of a water body or an entire water body into which the discharge of sewage (whether treated or untreated) from all vessels is prohibited. NDZ designations are used to prohibit vessel sewage discharges in order to protect environmentally sensitive areas, including shellfish beds, coral reefs, and fish spawning areas, or drinking water sources. States can establish NDZs if they can demonstrate to EPA that safe and adequate pump-out and dump stations are available.

In 1994, both Huntington Harbour and Newport Bay were listed on the Clean Water Act Section 303(d) list of impaired waters due to bacterial contamination. Once a waterbody has been listed on the 303(d) list of impaired waters, states are then required to develop a

Total Maximum Daily Load (TMDL) for the pollutant(s) causing impairment. In 1998, the Regional Board established the Newport Bay Fecal Coliform TMDL to address bacterial contamination in the Bay. The TMDL includes a zero wasteload allocation for vessel waste discharges, in light of the No Discharge Zone status of the Bay. The TMDL requires the City of Newport Beach and the County of Orange to conduct additional studies to assess the effectiveness of the vessel pump-out program. Work on development of the Huntington Harbour bacterial TMDL is expected to begin by Board staff in 2008. It is expected that this TMDL will also include a zero wasteload allocation for vessel waste discharges, since the Harbour is a No Discharge Zone.

Recommended Guidelines

Federal guidelines recommend, as a general rule, at least one pump-out station and dump station for every 300 to 600 boats over 16 feet length overall. This guideline is based on past surveys conducted by U.S. EPA. The California Department of Boating and Waterways has developed pump-out and dump station guidelines that recommend a statewide target of one pump-out and dump station for every 300 boats with Type III marine sanitation devices (MSDs) (i.e., devices that retain sewage for shore-based disposal or discharge beyond the three mile offshore limit).

Neither set of guidelines has been adopted as regulations. Therefore, they are to be regarded as recommendations, rather than enforceable requirements.

Costs and Funding

The cost to install a new vessel waste pump-out station varies depending on the proximity of the vessel terminal to sewer lines, the cost to hook up to the sewer line and associated permit fees. The Department of Boating and Waterways estimates on average a cost of \$20,000 to \$40,000 to install a new pump-out station. Replacement of existing facilities also varies depending on the type of equipment needing replacement. The cost of replacing and/or updating an existing pump-out station ranges between \$3000 and \$10,000. The cost of purchasing and installing a dump station is estimated to be between \$2,000 and \$10,000. The Clean Vessel Act provides federal funds in the form of grants for the installation of pump-out stations and dump stations. In California, these grants are administered through the Department of Boating and Waterways and are available through the year 2007. Grant funds are available to both the public and private sector. The grant will reimburse recipients for up to 75 percent of the installed cost of pump-out and dump stations.

Huntington Harbour and Newport Bay Vessel Waste Pump-out Surveys

In October 2002, the Orange County CoastKeeper performed a survey of vessel waste pump-out stations in Orange County (including those in Huntington Harbour, Newport Bay and Dana Point Harbor²). The CoastKeeper report is attached. The survey revealed

² Dana Point Harbor is under the jurisdiction of the San Diego Regional Board.

major issues related to pump-out stations, in particular those located in Newport Bay and Huntington Harbour. These issues include inoperable vessel waste pump-out stations, limited access to the pump-out stations, improper use of the pump-out stations, limited number of pump-out stations, lack of public education on the proper use of these pump-out stations and high bacteria levels in the water in the vicinity of the pump-out stations.

The CoastKeeper report did not include information on dump stations because there are no dump stations in Newport Bay or Huntington Harbour.

The existing vessel waste pump-out stations in Newport Bay and Huntington Harbour are listed in Attachment A, the recommended Vessel Sewage Disposal Program, Tables 1 and Table 2, respectively. On March 19, 2003, Regional Board staff, accompanied by the Orange County CoastKeeper, surveyed several of the pump-out stations listed in the CoastKeeper report to determine their status. A summary of Regional Board staff findings is shown in Attachment A, Table 3. The findings are discussed below. Board staff's findings confirmed the inadequacies found by the Coast Keeper. Board staff compared the results of the Orange County CoastKeeper Vessel Waste survey and Board staff's survey to the recommended guidelines discussed above in evaluating the need for upgrades to the current vessel waste disposal programs.

Newport Bay:

As shown in Attachment A, Table 1, there are eight privately owned vessel terminals for public use and one publicly owned vessel terminal for public use in Newport Bay. There are 11 pump-out stations for public use in Newport Bay. Four of these pump-out stations are located on docks, six are located at privately owned vessel terminals, and one is located at a publicly owned vessel terminal. Table 1 lists these vessel terminals and the locations of the pump-out stations and dump stations.

Charter boats in Newport Bay are kept at private docks or at privately owned vessel terminals that are not open for public use. The number and condition of pump-out stations servicing the MSDs in these charter boats is unknown at this time.

Regional Board staff surveyed 8 of the 11 pump-out stations. Problems observed included: limited or no access to several of these pump-out stations; lack of meters to determine usage; and hoses at all the pump-out stations were laying on the slips, which as in Huntington Harbour, could result in backwash or spillage of sewage once the pump is turned off and denotes improper housekeeping practices.

Newport Bay has approximately 10,000 recreational vessels. The majority of these are berthed on moorings and residential piers. A survey conducted in 2000 showed that only about 2,000 of the 10,000 vessels would be docked at a vessel terminal; the rest of the vessels were berthed at residential docks.

The City of Newport Beach estimates that 75% of these 10,000 boats are larger than 16 feet and would require the use of a pump-out station. Of the remaining 25% of the

vessels, 15% are smaller than 16 feet and are considered day use vessels, without a need for a dump station. The remaining 10% are also smaller than 16 feet but would have a portable toilet, thus requiring a dump station.

Huntington Harbour:

As shown in Attachment A, Table 2, there are eight privately owned vessel terminals in Huntington Harbour. Three of these vessel terminals each have a pump-out station for public use. There is an additional pump-out station for public use at a lifeguard dock. There are no publicly owned vessel terminals in Huntington Harbour.

Regional Board staff found that one out of the four public pump-out stations in Huntington Harbour was operable. Other problems identified included the use of duct tape to repair hoses, broken valves, lack of signs on how to operate the pump-out stations, lack of signs indicating that the harbor is a designated NDZ, lack of maps indicating the location of vessel waste pump-out stations, lack of current phone number for a contact person in case the pump-out station is inoperable, hoses at all the pump-out stations were laying on the slips (threatening backwash or spillage of sewage containing water once the pump is turned off), and lack of meters on the pump-out stations to determine usage.

The City of Huntington Beach staff estimates that approximately 3,000 boats are moored in Huntington Harbour. It is estimated that a large percentage of the 3,000 boats are greater than 16 feet and would require the use of a pump-out station.

Staff Recommendation:

Recommendations for additional pump-out stations and dump stations are based on site-specific considerations. In assessing need for additional pump-out stations and dump stations, the following factors were considered: the number of vessels with sewage retention devices requiring pump-out or dump stations; the location of vessel terminals in the affected area; the location and capacity of existing pump-out stations; and receiving water characteristics, such as its beneficial uses and sensitivity. (The fact that both Newport Bay and Huntington Harbour are designated NDZs speaks to the sensitivity of these waters and the significance of their beneficial uses.) The Department of Boating and Waterways' guidelines and federal guidelines were also considered.

Based on the findings in the CoastKeeper pump-out station survey and the most recent Regional Board staff survey, it is apparent that adequate housekeeping of pump-out stations and education of facility users are major issues that need to be addressed in Newport Bay and Huntington Harbour. In addition, Board staff believes that there is a need for additional pump-out stations and for the installation and proper operation of dump stations. Neither Huntington Harbour nor Newport Bay meet the federal and state guidelines for a minimum number of pump-out stations per numbers of vessels. Both Newport Bay and Huntington Harbour are designated NDZs; however, this designation is contingent, in part, on the demonstration that adequate pump-out stations are available.

Finally, as already noted, both water bodies are included on the Clean Water Act Section 303(d) list as the result of bacterial impairment of beneficial uses.

Based on the factors discussed above, staff recommends that the Regional Board and State Board take the actions shown in Attachment A to assure effective vessel waste programs in both Newport Bay and Huntington Harbour.

Attachments:

Attachment A – Santa Ana Regional Water Quality Board Vessel Sewage Disposal Program

Attachment B – Orange County CoastKeeper Survey of Pump-out Facilities, October 2002

Attachment C – Response to Comments

[Note: Changes to the Vessel Sewage Disposal Program proposed in the May 16, 2003 staff report are shown as ~~strikeout~~ and underline]

**Attachment A
Santa Ana Regional Water Quality Board
Recommended Vessel Sewage Disposal Program**

- Rescission of Resolution No. 88-89 and Orders No. 88-83, 88-84, 88-85, 88-91 by the Regional Board.
- Adoption of a Resolution by the Regional Board that would:
 - Find that a minimum of 7 additional pump-out stations is needed in Newport Bay and a minimum of 3 additional pump-out stations are needed in Huntington Harbour. In addition, there is a need to install and properly operate 3 dump stations in Huntington Harbour and 3 dump stations in Newport Bay.
 - Request the State Board to require the following:

Newport Bay and Huntington Harbour shall adhere to the following standards:

A. Pump-out Stations:

1. Each vessel terminal with 50 or more ~~boats~~ vessels shall have a pump-out station for public use in a accessible location, such as at an end tie; and
2. For every 500 vessels in each harbor, there shall be at least 1 pump-out station for public use, regardless of size of the vessels. This pump-out station shall be easily accessible, such as at an end tie.
3. All pump-out stations shall be equipped with a meter for the purpose of measuring use of the pump-out station.
4. Where the owner/operator of a vessel terminal with 50 or more ~~boats~~ vessels determines that a pump-out station cannot be installed, it shall contract with a private pumping service for all of its tenants' ~~boats~~ vessels. The pump-out service shall provide for a minimum of one pump-out per month. The vessel terminal owner/operator shall keep the contract current and shall make the contract available for inspection by the ~~harbor administrator—~~ Cities of Newport Beach and/or Huntington Beach, as appropriate, or the Regional Board.
5. To ensure compliance with Sections A (1) and (2) above, a minimum of 7 pump-out stations in Newport Bay and 3 pump-out stations in Huntington

Harbour shall be installed as shown in Figure 1 and Tables 1 and 2. These pump-out stations shall be installed per the implementation schedule in Section H below.

B. Dump Stations:

1. All vessel terminals with a capacity of 50 or more vessels under 26 feet in length shall have a dump station.
2. Dump stations should be located in conjunction with pump-out stations whenever possible.
3. Landside restroom facilities may be used as dump stations at vessel terminals with less than 50 vessels under 26 feet in length.
4. At other facilities such as boat launching ramps that cater to small craft (under 26 feet) a minimum of one dump station should be provided.
5. In order to comply with this section, a minimum of ~~14~~ 3 dump stations in Newport Bay and ~~8~~ 3 dump stations in Huntington Harbour shall be installed per the schedule in Section H. Also please see Tables 1 and 2.

C. Plumbing Standards

1. Each pump-out station and dump station shall be constructed and plumbed such that pipe breakage, fitting failure, and related damage is minimized or eliminated.
2. Each pump-out station and dump station shall be designed and constructed in such a manner that there shall be no leakage or spillage of sewage.
3. Pumps provided at the pump-out station for the transfer of waste from vessels to the pump-out station and from the pump-out station to the disposal system shall:
 - a. Be of self-priming and non-clogging design.
 - b. Be of sufficient size and capacity to complete the transfer operation in a reasonable amount of time when operating against the maximum anticipated head.
 - c. Be designed and installed to prevent leakage or spillage.
 - d. Be designed and installed to meet all safety requirements.
 - e. Be constructed of corrosion-resistant material.
4. All piping/hosing used in the design and construction of a pump-out system shall:

- a. Be designed to withstand any pumping pressure or vacuum encountered without leakage; and
 - b. Be constructed of material capable of withstanding solar radiation and chemical action of freshwater, salt water, chemical additives, and sewage without excessive deterioration.
 - c. All fittings shall be of corrosion-resistant material and shall be so constructed and installed as to ensure a water-tight seal. All pump-out systems shall be designed and constructed to have a minimum capability of pumping out vessel marine sanitation devices having 1 ½ -inch fittings. The system shall be designed and constructed to prevent leakage when transferring or when the system is disconnected. This would normally require a minimum of 4 valves. One on each side of the pump, plus one at the storage tank, and one at the vessel holding tank connection.
5. The pump-out station shall be designed and constructed such that a water supply is available at appropriate locations for flushing and cleaning of vessel holding tanks and storage tanks. The water supply shall be protected against back-siphoning of waste into the water system by a backflow prevention device.
 6. Regional Board staff will convene an adhoc committee consisting of the appropriate staff from the County of Orange, the City of Huntington Beach and the City of Newport Beach to develop and implement appropriate construction standards for pump-out stations and dump stations within the Santa Ana Region that would be consistent with the sections listed above.

D. Cost Provision Education and Access

1. While the State encourages the free use of pump-out stations and dump stations a maximum user fee of \$5 may be charged consistent with the Department of Boating and Waterways requirements.

E. Education and Access

1. All public pump-out stations and dump stations shall be located preferably at an end tie so that they will be visible and easily accessible by vessel operators.
2. Each pump-out station and dump station shall have signage readily visible to traveling vessels and use instructions in English and Spanish and in colorized graphics as to how to operate the station, how to minimize leakage, and how to report an inoperable station.
3. Each vessel terminal operator shall provide a 24-hour phone number for pump-out station and dump station users to report station failures.

4. Each pump-out station and dump station location shall be marked to prevent parking of vessels other than for use of the pump-out station.
5. The Cities of Huntington Harbour and Newport Beach shall notify the owners of slips in front of residences that each the harbor is an NDZ and that it is illegal to discharge the contents of their MSDs into the NDZ waters of the State (Newport Bay and Huntington Harbour). Along with the notification, each City harbor administrator shall provide a map identifying the location of the pump-out stations and dump stations.
6. Vessel terminal owners/operators shall notify the owners/operators of vessels occupying their terminals that Newport Bay and Huntington Harbour are No Discharge Zones (NDZ) and that it is illegal to discharge the contents of their MSDs into the NDZ waters of the State (Newport Bay and Huntington Harbour). The vessel terminal owners/operators shall provide owners/operators of vessels occupying their terminals a map identifying the location of the pump-out stations and dump stations.

E. Operation Monitoring and Maintenance

1. Vessel terminal owners/operators shall prepare a set of operation and maintenance instructions to be used in the operation and maintenance of the pump-out station/dump stations. The operation and maintenance instructions shall be available for inspection at the pump-out station/dump station and if found to be deficient by Regional Board staff, the vessel terminal owner/operator shall correct the instructions within 30 days.
2. The operation instructions shall have a detailed explanation of valve positions when the system is transferring sewage and when the pump-out station/dump station is not being used.
3. The operation and maintenance instructions shall include methods that will be used to isolate portions of the pump-out station/dump station system for maintenance and repair.
4. All pump-out stations/dump stations shall be operated and maintained in such a manner that there shall be no leakage or spillage of sewage.
5. The vessel terminal owner/operator shall inspect their ~~Each~~ pump-out stations and dump stations ~~shall be monitored~~ at least three times per week during October 1 through May 31 and five times per week during June 1 through September 30th. The purpose of such inspection is to ensure the pump-out stations/dump stations are working properly and there are no leaks of sewage into the receiving waters.

~~6. Vessel terminal owners/operators must keep in stock readily replaceable spare parts such as hoses. When a pump-out station or dump station is inoperable, its owner shall initiate appropriate repairs within 24 hours of noticing the inoperability. Where the inoperability is found to be due to the failure of a readily replaceable part, such as a hose, the repair must be done within 24 hours. Where necessary, the vessel terminal owner/operator shall secure a licensed plumbing contractor who would assess the reason that the pump-out station/dump station is not working properly, identify the steps required to bring that pump-out station/dump station back into working order, and identify a reasonable time frame to complete the necessary repairs. The vessel owner/operator must initiate the repairs promptly, and to take all reasonable steps to assure that the repairs are completed within the time frame identified by the contractor. The vessel terminal owner shall post a sign on the pump-out station/dump station indicating that it is not working, with a map of other locations of pump-out stations/dump stations. to assess the problems causing the pump-out station and/or dump station from working properly and the steps necessary to bring back the pump-out station and/or dump station into working order. The assessment must be done within 24 hours of noticing the inoperability of the pump-out station and/or dump station. In addition, vessel terminal owners/operators must post a sign on the pump-out station/dump station indicating that it is not working along with a map showing other locations of pump-out stations/dump stations.~~

6. Vessel terminal Owners/operators must maintain, and provide for inspection at any time, maintenance and monitoring logs at the site of each pump-out station and dump station.

~~8. Owners must keep in stock spare parts such as hoses and other parts necessary to ensure that the pump-out station and dump station is inoperable for no more than 24 hours~~

~~9.7. In addition, each harbor administrator~~ the Cities of Newport Beach and Huntington Harbour shall inspect each pump-out station and dump station to ensure that the pump-out stations and dump stations are operational and that vessel terminal operators keep the necessary maintenance logs. These inspections shall be performed at least monthly.³

³ In the case of Newport Bay and in Huntington Harbor, where the County of Orange leases vessel terminals to private parties, the County of Orange shall be responsible to implement these inspection requirements for their facilities.

F. Live-aboard Vessels

1. Vessel terminals with live-aboard vessels shall require all live-aboard vessels that are incapable of moving under their own power to have all overboard discharge piping permanently sealed, unless such discharge piping is plumbed directly to appropriate on-shore waste facilities.
2. Vessel terminal owners/operators shall inspect all live-aboard vessels monthly to ensure that all overboard discharge piping has been sealed. A log of these inspections shall be kept at the vessel terminal and made available to the staff of the Regional Board or to staff from the Cities of Newport Bay and Huntington Harbour.
3. Vessel terminal owners/operators with live-aboard vessels capable of moving under their own power shall notify the occupants of such vessels that it is illegal to discharge the contents of their holding tanks into the NDZ waters of the State (Newport Bay and Huntington Harbour) and require them to use a pump-station or to subscribe to a pump-out service.

G. Periodic Review of Effectiveness

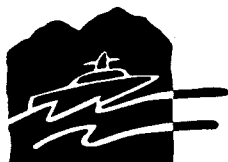
1. The Regional Board shall oversee compliance with the State Board order by the vessel terminal operators and the cities of Huntington Harbour and Newport Beach. Oversight by the Regional Board shall include at a minimum annual inspections, regular collection of samples and review of bacterial data collected from the receiving waters in the vicinity of the pump-out stations.
2. The Regional Board shall also review the effectiveness of the vessel waste pump-out program at a minimum of every 2 years to determine if revisions of the pump-out station standards are necessary to achieve protection of water quality.

H. Time Schedule:

Regional Board staff requests the State Board to require that the pump-out stations be installed and in operation within 6 months of the adoption of the State Board order. Regional Board staff recommends the following time schedule (subject to adjustment based on the State Board's adoption of the relevant order).

| <u>Task</u> | <u>Compliance Date</u> |
|---|-----------------------------------|
| Vessel terminal operators required to install pump-out /dump stations shall: | |
| <ul style="list-style-type: none"> Indicate commitment to install the additional pump-out stations and/or dump stations via letter to the Executive Officer of the Regional Board. | 1/5/04 |
| <ul style="list-style-type: none"> Prepare and submit plans and specifications for pump-out station/dump station installation to the Executive Officer of the Regional Board. If the Executive Officer does not approve of the pump-out station and/ dump station location, or determines the plans and specifications are inadequate, the vessel terminal operator shall prepare new or supplemental plans and specifications in accordance with a schedule set by the Executive Officer of the Regional Board. | 2/5/04 |
| <ul style="list-style-type: none"> Submit Plans and agreements for pump-out station/dump station maintenance to the Executive Officer of the Regional Board | 3/5/04 |
| <ul style="list-style-type: none"> Begin construction and installation of pump-out station/dump station. | 6/5/04 |
| <ul style="list-style-type: none"> Complete construction and installation of pump-out station/dump station. | 7/6/04 |
| <ul style="list-style-type: none"> Full compliance with State Board order; notify Executive Officer of the Regional Board. | 8/6/04 |

Tables 1 and 2
 Figures 1 and 2



ORANGE COUNTY COASTKEEPER

441 Old Newport Blvd. Suite 103 Newport Beach, California 92663
 Office: (949) 723-5424 Fax: (949) 675-7091 Email: coastkeeper1@earthlink.net
<http://www.coastkeeper.org>

October 4, 2002

RE: Status report of vessel waste pump-out facilities

To Interested Parties:

| SANTA ANA REGIONAL | |
|--------------------|-------------|
| REC'D | DATE |
| | OCT 23 2002 |
| | |
| | |
| | |
| | |
| | |
| | |

The purpose of this survey of vessel waste pump-out facilities located throughout Orange County harbors is not to fix blame, but rather, encourage fixing the problems identified in this report. This report was compiled solely by the Orange County Coastkeeper, a 501(c)(3) non-profit corporation, whose mission is to "protect and preserve the marine habitats of Orange County through education, restoration, and enforcement".

This intent of this survey was to merely answer questions of our own and others regarding pump-out stations. There was no advance knowledge or pre-conceived conclusions. As the survey progressed, more questions were actually raised than were answered. The issues raised in this survey, in almost all cases, lead to an overall lack of guiding management standards. The responsibility for developing and adopting standards regulating vessel waste pump-out stations rests with the Regional Water Quality Control Boards. We have had ongoing dialogue with the Santa Ana Regional Water Quality Control Board relative to the data collected in this survey. We are encouraged by staff's response and have offered to assist in developing regulatory standards for vessel waste pump-out facilities.

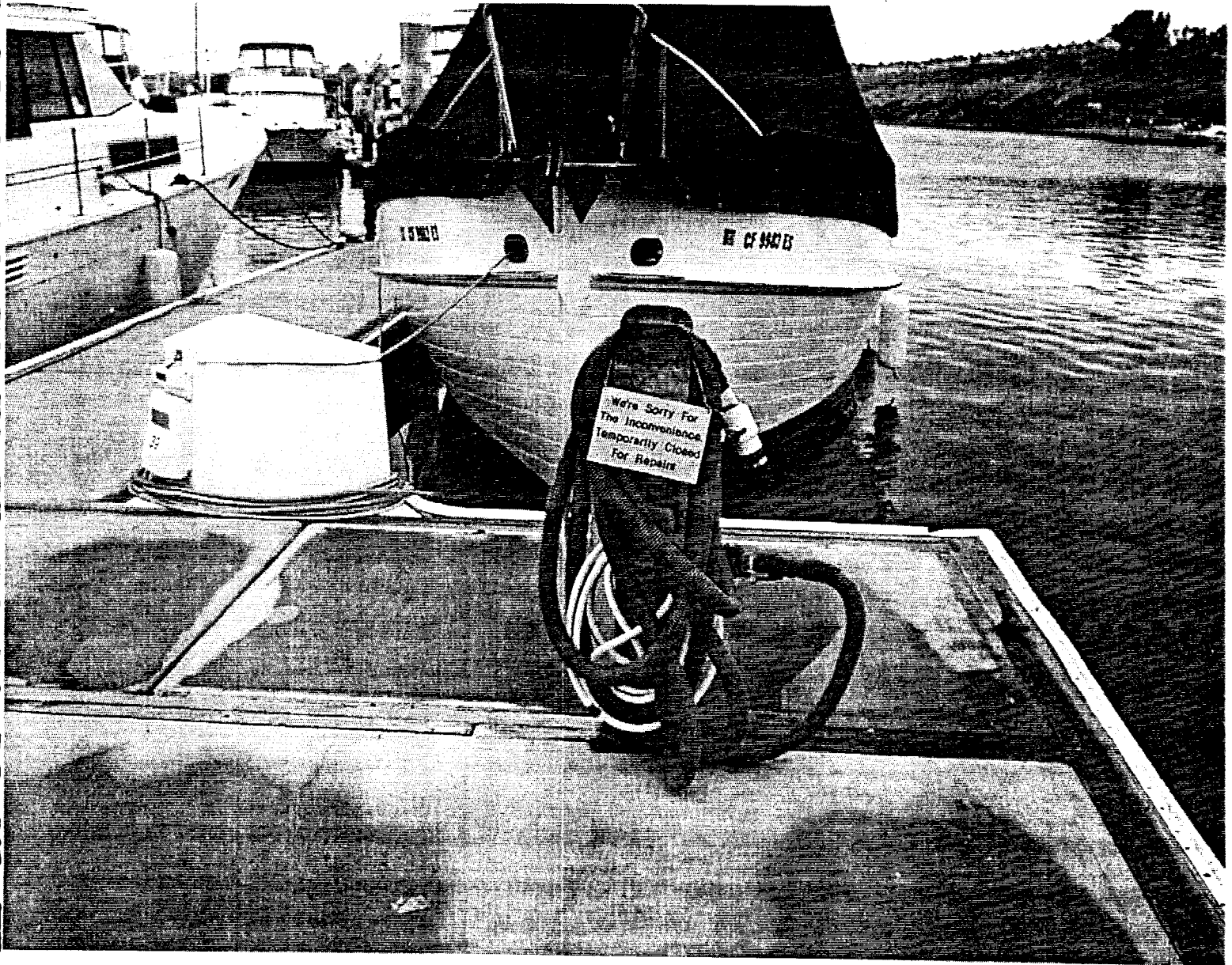
As we proactively want to develop programs that produce measurable results for clean water, it is easy to conclude vessel waste pump-out facilities must be conveniently located, operational, easy to operate, and accessible in order to motivate the general boating public to utilize them. We cannot expect the boating public "do the right thing" if the proper sewage disposal facilities are inconvenient, inoperable, difficult to operate, and inaccessible. It is our hope this report will stimulate actions that will result in better management and maintenance of all countywide pump-out facilities.

Cordially,

Garry Brown
 Garry Brown
 Executive Director

Harbor Pumpout Survey

Orange County Coastkeeper



Orange County Coastkeeper

OC Pumpout Survey

Table of contents

| | |
|-------------------------------|--------------|
| Executive Summary..... | 3-11 |
| Data Section..... | 12-13 |
| Newport Harbor | 14-32 |
| Dana Point..... | 33-38 |
| Huntington Harbor..... | 39-44 |

EXECUTIVE SUMMARY

INTRODUCTION

Orange County hosts three harbors: Huntington Harbour, Newport Harbor, and Dana Point Harbor. Contained in these harbors are an estimated 17,000 boats, predominantly pleasure boats. With this high number of boats concentrated in relatively small areas, the potential for pollution from improper or illegal disposal of waste from waste holding tanks is great. All three Orange County harbors are Federally designated as No-Discharge harbors and pumpout facilities are necessary to properly dispose of boater-generated sewage. The potential for serious problems arise when vessel sewage is not disposed of in the proper manner. These problems include, life-threatening diseases, contamination of shellfish, and decreased oxygen levels that stress or kill marine life. Sewage dumping also contributes to a less attractive destination for tourism and boaters. The 1992 Clean Vessel Act identifies vessel sewage discharge as "A substantial contributor to localized degradation of water quality in the United States." There are over 30 pumpout stations throughout Orange County harbors officially listed by municipal and state regulatory agencies.

OBJECTIVE

The purpose of this survey is to assure pumpout stations in Orange County harbors actually exist as listed, are operational, sufficiently distributed, accessible, visible, well maintained, and pose no health hazard to the public and the surrounding environment. From June 2002 to September 16, 2002, the Orange County Coastkeeper has completed surveys in Newport Harbor, Huntington Harbour, and Dana Point Harbor monitoring and testing the above criteria.

METHODOLOGY

Scope of Project: The project surveyed both public and private pumpout stations listed by public agencies in Newport, Huntington and Dana Point Harbors during the summer boating season. This time period was chosen as it is when the greatest demand exists for pumpout station use.

Project Design: The project was designed to survey pumpout stations on multiple dates throughout the summer boating season to determine their level of operability and accessibility for the boating population to safely dispose of their sewage. Bacterial testing was used to determine water quality around each pumpout station in order to detect possible leakage or faulty use of the pumpout station. The project also takes into consideration that some pumpout stations are for private use and are not accessible by the public.

PROCEDURES

The survey procedure went as follows:

1. Using standard sample collection methods a 100ml bacteria sample was collected from the area immediately adjacent to the pumpout station.
2. The visual appearance of the pumpout station was assessed and photos were taken.
3. The station was operated using a five-gallon bucket filled with water to make sure The pump was operational, and that suction was sufficient.
4. A survey form for recording temperature, date, time, and accessibility was completed. (A copy of the Survey form is in the data section)
5. The bacteria samples were processed at the CoastKeeper lab in Newport Beach and readings were taken for Total Coliform and *E. Coli* bacteria.

BACTERIAL TESTING

Water samples were taken at each pumpout station available to the public in order to determine water quality. AB 411 bacteriological standards for Total Coliform, and the EPA recreational water quality standard for *E. coli* were applied as the criteria for determining water quality in a pumpout station area. Total Coliform is a measure of the overall bacteria level in the sample while *E.coli* is an indicator of fecal material in the sample. Details of these standards are presented at the beginning of the data section of this report.

Coastkeeper Findings on Bacteria Data

Over eighty Bacteria samples were collected and tested for Total Coliform and *E. coli* bacteria to produce the data for this project. The results of the tests were used as an indicator of potential pumpout station problems and to help us target specific pumpouts that could be discharging waste due to inappropriate use, leaky hoses, or pipes. Our data is useable for only the single sample standards for both Total Coliform and *E.coli* since we were unable to collect samples often enough to create a thirty-day running average. However, sites with multiple readings over thirty-day running average standards should be studied in more detail.

Newport Harbor: For total coliform, The Lido Village Marina test site measured above the single sample standard of AB411. A boater had just finished using the facility and mentioned that he may have spilled sewage in the water. For *E.coli*, all stations except the American legion Yacht Club exceeded the single sample standard during our 7/29/02 survey. On our 8/12/02 survey of Newport Dunes, De Anza Marina, Newport Bay Club and the American Legion Yacht Club exceeded the *E. coli* standard. On 9/16/02, all stations except for the Newport Bay Cub Marina and the Harbor Patrol exceeded the

standard. Most stations also exceeded the EPA geometric mean standard for *E.coli* on multiple dates

Huntington Harbour: For Total Coliform, no stations exceeded the single sample standard. For *E.coli* the Lifeguard Dock and Huntington Harbour Marina stations exceeded the single sample standard on our 8/12/2002 sampling.

Dana Point Harbor: All pumpout station samples were within standards for Total Coliform and *E.coli*.

Classification of Pumpout Ownership

There are currently two classifications of pumpout ownership and usage.

1. Private- purchased with private funds, for use only by owner and owner's clients.
2. Public- state or municipal funded, for public use.

The classifications for pumpout station ownership should be expanded in order to take into account privately owned pumpout stations that may or may not be available for use by the public. Utilizing only the two classifications, the current "list of record" of pumpout stations conveys a false appearance there are more pumpout stations available to the public than do exist in reality. This is due to the high number of private pumpout stations that are not available for public use.

A third classification for pumpout station ownership and use is imperative in order to show a true number of pumpout stations that are actually available to the general boating public.

Suggested new classification:

1. **Public**--Publicly owned, public use
2. **Private/Public**--Privately owned, public use
3. **Private/Private**--Privately owned, private use only

Huntington Harbor Survey Results

| Public/Public | Operating Status | % sample dates operational | Bacteria results |
|-----------------------|---------------------------------|----------------------------|----------------------------|
| 1.Lifeguard Dock..... | inoperable 7/3 and 7/29/02..... | 50%..... | TC/passed, EC/failed 08/12 |

Private/Public

| | | | |
|------------------------------|------------------------------|----------|----------------------------|
| 1.Peter's Landing..... | inoperable 8/6/02..... | 75%..... | TC/passed, EC/passed |
| 2.Huntington Marina..... | inoperable 7/29, 9/4/02..... | 50%..... | TC/passed, EC/failed 08/12 |
| 3.Sunset Aquatic Marina..... | under construction..... | 0..... | |

***Huntington Harbor Pumpout Statistics**

3 out of 4 pumpout stations were operable at least once this summer.

All 3 of these pumpout stations were accessible and could be used by the public when they were operational.

The average percentage of operational and accessible pumpout stations in Huntington Harbor during sampling events was 44%.

Dana Point Harbor Survey Results

Public/Public

| | | | |
|----------------------|---------------|-----------|----------------------|
| 1.Harbor Patrol..... | operable..... | 100%..... | TC/passed, EC/passed |
| 2.Guest Dock..... | operable..... | 100%..... | TC/passed/passed |

Private/Public

| | | | |
|---------------------------|----------------------------------|-----------|---------------------|
| 1.Side Tie "A" dock..... | inoperable 8/6,8/20,9/10/02..... | 25%..... | TC/passed,EC/passed |
| 2.End of "F" dock..... | operable..... | 100%..... | TC/passed,EC/passed |
| 3.Texaco Gas Station..... | permanently removed..... | | |

*Dana Point Pumpout Station Statistics

3 out of 4 pumpout stations were operable every sampling event. Dock "A" side tie was only operable once.

All 4 had good public access. The average percent of all pumpout stations in Dana Point Harbor that were accessible and operational this summer was 81.25%.

Newport Harbor Survey Results

| Public | Operating Status | % sample dates operable | Bacteria results |
|---------------------------------|----------------------------|-------------------------|----------------------|
| 1.Harbor Patrol (see note)..... | inoperable 9/16/02..... | 75%..... | TC/passed, EC/failed |
| 2a.Newport Dunes Marina..... | inoperable 7/1/02..... | 75%..... | TC/passed, EC/failed |
| 2b.Newport Dunes Launch..... | operable..... | 100%..... | TC/passed, EC/failed |
| 3.Bahia Corinthian..... | inoperable all summer..... | 0%..... | TC/passed, EC/failed |
| 4.Balboa Yacht Basin..... | inoperable 9/16/02..... | 75%..... | TC/passed, EC/failed |
| 5.Balboa Bay Club..... | operable..... | 100%..... | TC/passed, EC/failed |
| 6.Arches Marina..... | operable..... | 100%..... | TC/passed, EC/failed |
| 7.American Legion..... | inoperable 7/1/02..... | 75%..... | TC/passed, EC/failed |
| 8.Balboa Fun Zone..... | inoperable all summer..... | 0%..... | TC/passed, EC/failed |
| 9.Fernando Street..... | operable..... | 100%..... | TC/passed, EC/failed |

Private/Public

| | | | |
|----------------------------------|--|-----------------|----------------------|
| 1.De Anza Marina..... | inoperable 7/29/02..... | 75%..... | TC/passed, EC/failed |
| 2.Newport Dunes Marina (#2)..... | does not exist | no results..... | |
| 3.Lido Village..... | inoperable, no access 7/29 and 8/12..... | 50%..... | TC/failed, EC/failed |

Private/Private (No Public Access)

| | | | |
|----------------------------------|-----------------------------------|--|--|
| 1.Pilgrim Yacht Charters..... | now called Larsen's Shipyard..... | | |
| 2.Hornblower yacht Charters..... | sewage line access at dock | | |
| 3.Crow's Nest Marina..... | | | |
| 4.Orca Yacht Charters..... | | | |
| 5.Lancer's Shipyard..... | now called Adventures at Sea..... | | |
| 6.Icon Yacht Charters..... | removed permanently..... | | |

- 7.Lido Sailing Club..... removed permanently
- 8.Blue Water Grill Marina.....
- 9.Newport Landing.....removed permanently.....
- 10.Balboa Pavilion.....removed permanently.....
- 11.Lido Peninsula Marina.....

Note:

The harbor patrol has two pumpout stations on one dock. We counted it as one station because, based on observations, only one boat can moor at the dock at a time. Due to normal boat length and a strong current at this location, it is unlikely that two boats will use both pumpout stations at the same time. Conversely, The Dunes Marina must be counted twice because it has two pumpout stations located at separate docks, the launch ramp and the marina.

***Pumpout Station Statistics**

18 of the 23 total pumpout stations listed by the city of Newport Beach actually exist. (22% of listed pumpout stations do not exist).

Out of these 18, 12 are available for use to be general boating public.

Out of these 12, the average percentage of pumpout stations operable and available to the public this summer was 69%.

Conclusions

Overall this survey identified four problems relative to management of pumpout stations:

- 1) **Reasonable repair times.** Our survey showed stations are inoperable for weeks and even months waiting for repairs.
- 2) **A lack of enforcement of docking time limits in Newport Harbor.** There are frequently boats moored at stations and left unattended, thus, blocking access for pumpout use.
- 3) **Inadequate number of pump out facilities available to the general boating public.** Comparing the "list of record" of pumpout stations to those that actually exist, there are fewer operating pumpout stations-- this is especially prevalent in Newport Harbor.
- 4) **Lack of adequate pumpout operational instructions for the general boater.**
- 5) **General absence of regulatory standards.** Standards relative to the number of pumpout facilities per number of boats in the harbors, inspections and operations, repair times, and guidelines for private ownership installations and management, do not currently exist. The Regional Water Quality Control Boards have the responsibility to regulate vessel waste pumpout facilities and should do so.

Newport Harbor

The stations in Newport Harbor have problems caused from a lack of public and private maintenance and enforcement. Problems include the illegal mooring of boats at pumpout docks to inoperable pumpout stations. Stations need to be inspected and maintained on a regular schedule that insures they are working without leaks. Better signage should be designed to identify the location of the stations and how to properly use them. Twelve public pumpout stations working an average of 69% of the time is not adequate for the number of boats permanently moored in the harbor.

Recommendations: Maintenance and repairs of pumpout stations in Newport harbor is an issue that should immediately be addressed. An employee of the city/county should be trained to do repairs on pumpout station equipment, and replacement parts should be kept on-site for quick replacement. Currently parts are ordered on an as needed basis causing automatic delays in repairs. A non-local independent repairman preforms repairs to pumpout facilities. This procedure of repairing inoperable pumpout stations automatically causes long delays in timely repairs.

Enforcement of public and private/public pumpout stations needs to be improved in Newport Harbor. Ordinances or a Regional Board Order needs to be adopted authorizing the Harbor Patrol to enforce illegal mooring of boats at pumpout docks. If a boat is moored at a pumpout station for hours at a time, or in the case of Lido Village Marina for days at a time, the boat should be at least cited or impounded.

The City of Newport Beach currently has ordinances regulating the local Charter Boat industry permanently moored and conducting routine business in the Harbor. The number of large charter boats doing business in Newport harbor has dramatically

increased in recent years. Contained in the ordinance are requirements stipulating the use of dye tablets in waste holding tanks of these vessels, as well as, requirements for sewage disposal facilities. From our observations, the City's ordinance is neither be followed or enforced. We recommend a review of the ordinance for relevance and educational meetings with charter boat owners. Once this is completed, the City should ensure enforcement of the ordinance.

Huntington Harbour

Pumpout stations in Huntington Harbor are run down by comparison to other harbors. have inadequate instructions for boater use, and their locations are not well marked. On 7/29/02 there was not one operational pumpout stations in Huntington Harbor. When construction of the fourth station (Sunset Aquatic Marina) is completed, it is our opinion that the number of pumpout stations compared to the number of boats permanently moored in the Harbour is still inadequate. Bacteria counts around these stations warrant further testing to ensure there are no leaks.

Recommendations: Huntington Harbor should implement an overall management program and improve a repair and maintenance program to ensure that boaters have a place to safely dispose of their vessel waste. Our recommendation is the same as for Newport Harbor, stock repair parts and have a trained employee able to repair pumpout stations quickly. Most problems with public pumpout stations could be solved if parts and trained staff were available for quick repairs.

Dana Point Harbor

Dana Point Harbor's major problem is the maintenance of the pumpout station located at the side tie on Dock A, which was not operable on August 6th, August 20th and September 10th. The pumpout station at the gas dock has been permanently removed and should be taken off the list of pumpout stations.

Recommendations: The pumpout station at the side tie dock "A" should to be promptly repaired. A review should be done to determine if another public pumpout station should be installed to replace the station removed at the gas dock. Dana Point's pumpout stations are maintained in good operating condition.

Evaluation of the three Harbors:

If we were asked to apply an actual grade to each harbor for accessible and operational pumpout stations based on this survey, using A as highest and F as lowest, we would assign the following letter grades:

| | |
|--------------------|----------|
| Huntington Harbour | Grade F |
| Newport Harbor | Grade D+ |
| Dana Point Harbor | Grade B |

Data Section

AB 411 Bacteriological Standards

(a) The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows:

(1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:

- (A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1; or
- (B) 10,000 total coliform bacteria per 100 milliliters; or
- (C) 400 fecal coliform bacteria per 100 milliliters; or
- (D) 104 enterococcus bacteria per 100 milliliters.

(2) Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of bacteria in water from any sampling station at a public beach or public water contact sports area, shall not exceed:

- (A) 1,000 total coliform bacteria per 100 milliliters; or
- (B) 200 fecal coliform bacteria per 100 milliliters; or
- (C) 35 enterococcus bacteria per 100 milliliters.

EPA WATER QUALITY STANDARD FOR *E. COLI*

Escherichia coli (*E. coli*) is the most reliable indicator of fecal bacterial contamination of surface waters in the U.S. according to water quality standards set by the EPA. Although *E. coli* bacteria are not typically pathogenic in and of themselves, an extensive epidemiological study (Dufour 1984) demonstrated that *E. coli* concentrations are the best predictor of swimming-associated gastrointestinal illness. EPA bacterial water quality standards are thus based on a threshold concentration of *E. coli* in water above which the health risk from waterborne illness is unacceptably high.

The EPA recommended recreational water quality standard for *E. coli* is based on two criteria: 1) a geometric mean of 126 organisms/100 ml based on several samples collected during dry weather conditions or 2) 235 organisms/100 ml for any single water sample (EPA 1986). The geometric mean is calculated by the equation: geometric mean of $y = n^{\text{th}}$ root of $y_1 * y_2 * y_3 \dots y_n$. If either criterion is exceeded, the site is not in compliance with water quality standards and not recommended for swimming. The gastrointestinal illnesses per 1000 swimmers (Dufour 1984).

System Used for bacteria testing

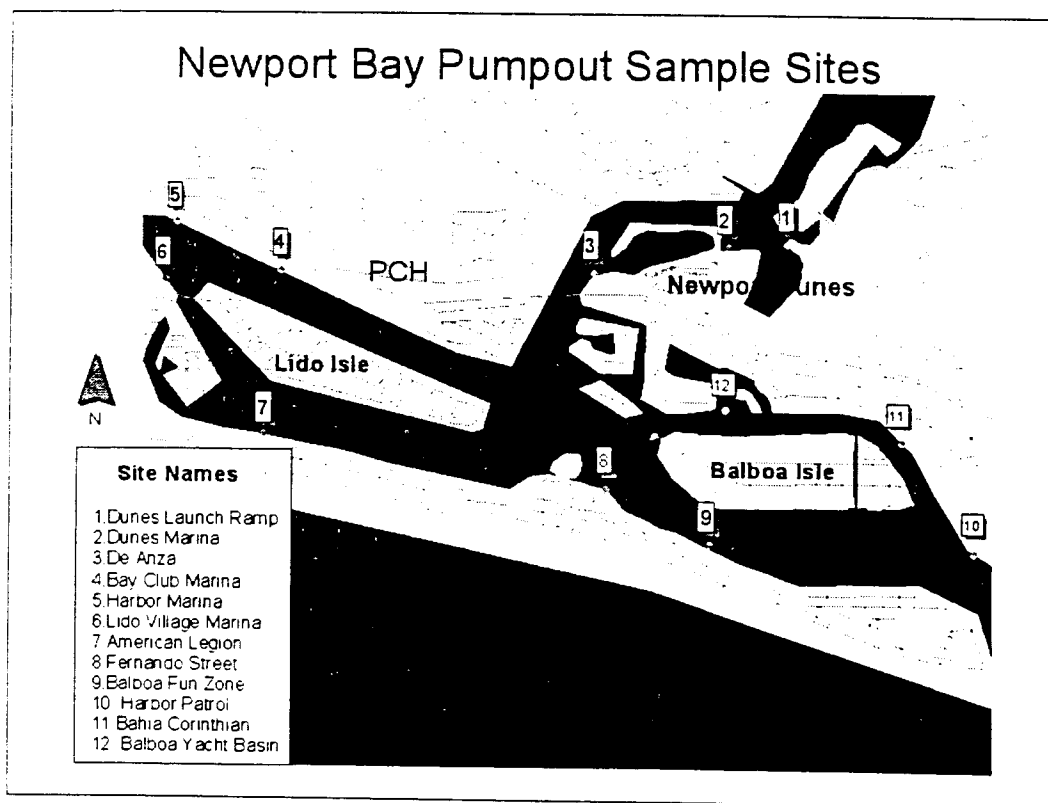
The Idexx system was used for all of the bacteria testing conducted during the study. The Idexx system uses the MPN per 100ml, or "most probable number of bacterial organisms per 100ml of water." The test used was Idexx's Colilert 18 hour and 24 hour, which tests for total coliform and e-coli. All bacterial tests for this study were done in the Orange County CoastKeeper's laboratory.

Form used to Survey Pumpout stations

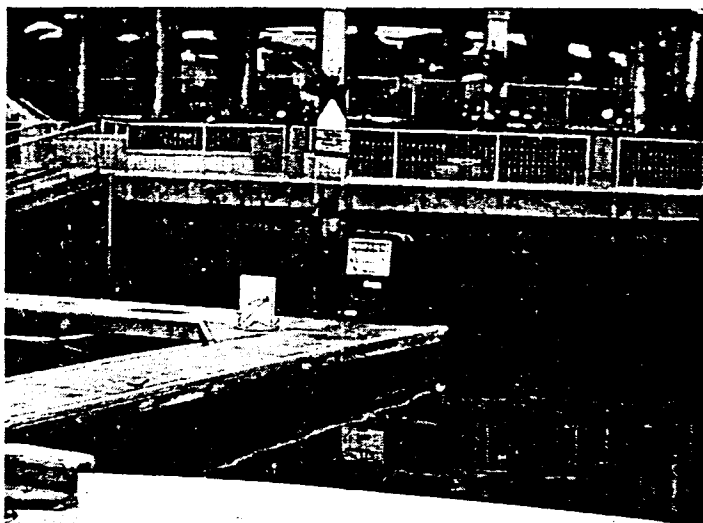
| Orange County Coastkeeper Pumpout Water Sample Form | | |
|---|-----------------------|--------------------|
| Sampled by: _____ | | |
| City, Harbor (site #) _____ | | |
| Relative Location of pumpout station (streets, landmarks) _____ _____ | | |
| Site GPS Coordinates (latitude and longitude) _____ | | |
| Date _____ | Time of Day _____ | Tide: low high ebb |
| Water Temperature _____ | Air Temperature _____ | Water Depth _____ |
| Wind intensity _____ | | |
| Distances at which samples were taken from pumpout station _____ | | |
| Posted notice information (who maintains pump?) _____ _____ | | |
| Is pump operational? _____ Is pump metered? _____ Is pump accessible by public? _____ | | |
| Observations, or comments _____ _____ _____ | | |

Newport Harbor Sampling

Map of study area, and sites being sampled:



Dunes Launch Ramp Pumpout



The Newport Dunes launch ramp pumpout vessel. Photo taken July 1, 2002

Data:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions |
|---------|-------|-----------|----------------|-------------|---------|--------------|
| 7/1/02 | 8:15 | no result | no result | yes | yes | yes |
| 7/29/02 | 10:15 | 738 | 1904 | yes | yes | yes |
| 8/12/02 | 9:25 | 52 | 547 | yes | yes | yes |
| 9/16/02 | 10:38 | 546 | 3130 | yes | yes | yes |

Problems: On July 29th, a boat for over 3 hours, from 10:15 to 1:15, was moored at the pumpout dock, making it impossible for other boats to use the pumpout. This boat was not using the pumpout, and appeared to be a customer of the restaurant on shore.

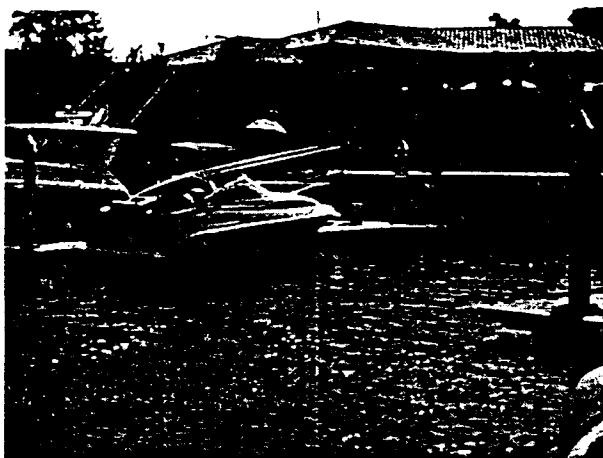


Photo of boat blocking Newport Dunes launch ramp pumpout vessel. Date- July 29, 2002. Time- 10:15
Boat CF # 4760 PV. Make: Bayliner.

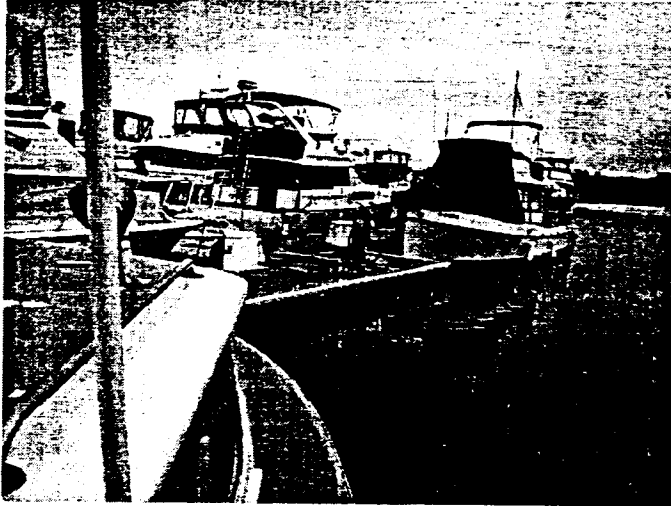


7/29/02. Boat still blocking pumpout at 1:15pm.

Bacteria test results met AB-411 standards. *E.coli* above EPA standard on two dates

Recommendations for site: Stricter patrol and enforcement of rules regarding the pumpout need to be put into play.

Dunes Marina

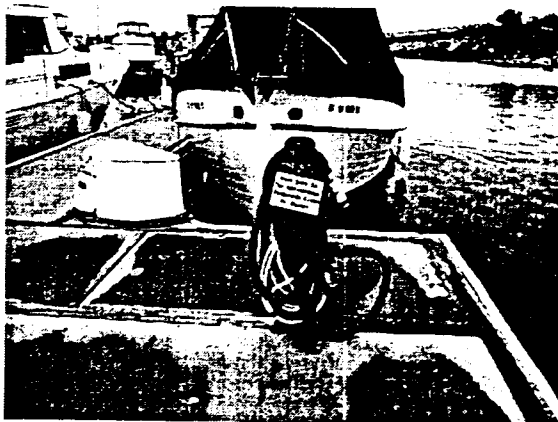


Dunes Marina. Photo taken 7/1/02.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 8:25 | no result | no result | no | no | no | fair |
| 7/29/02 | 10:25 | 504 | 1246 | yes | yes | no | fair |
| 8/12/02 | 9:30 | 305 | 907 | yes | yes | no | fair |
| 9/16/02 | 10:42 | 554 | 3076 | yes | yes | no | fair |

Problems: The Dunes Marina pumpout station does not have any directions on how to operate it, nor any visible signs that mark its location in the Marina. The pumpout station was not operable on 7/1/02, as indicated by the yellow sign posted on the pump.

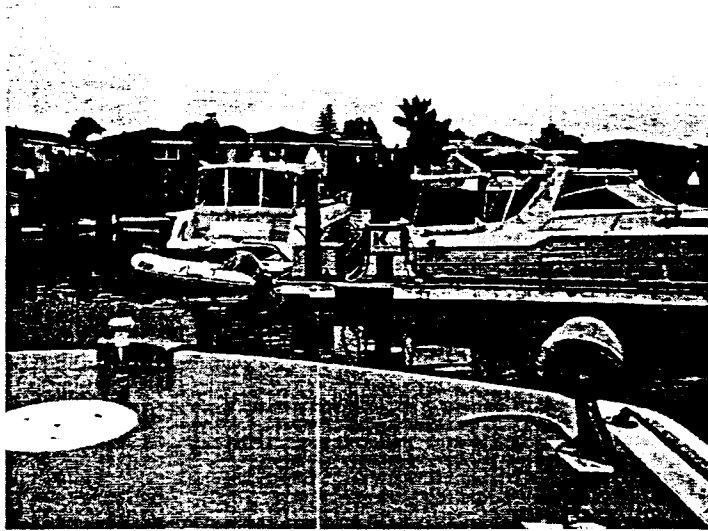


Dunes Marina, inoperable pumpout station. 7/1/02

Bacteria test Total Coliform results indicate that this site meets single sample standards. *E. Coli* exceed EPA standards 7/29, 8/12, and 9/16/02.

Recommendations: A new marker for this pumpout station, along with instructions on how to operate it are necessary to ensure that boaters can use the pumpout station with ease. Frequent maintenance of the pumpout station should also be implemented to ensure that the pumpout station is operable, especially at times so near the fourth of July in the middle of summer when the harbor sees heavier traffic.

De Anza



DATA:

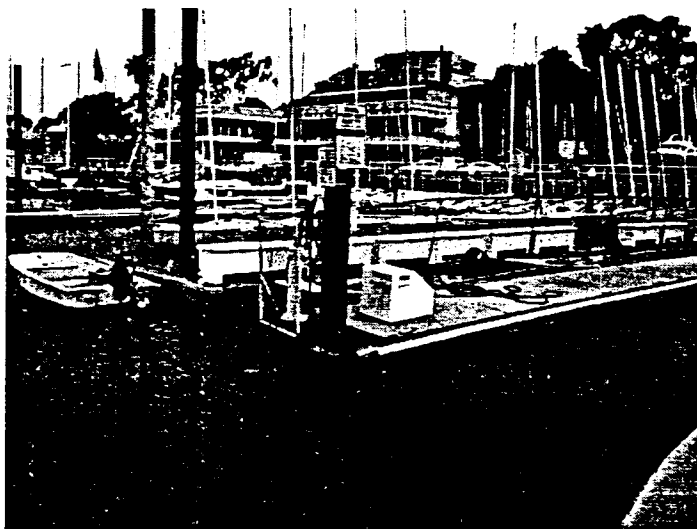
| Date | Time | E.coli | Total Coliform | Operational | Visible | Instructions | Access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 8:15 | no result | no result | yes | no | yes | fair |
| 7/29/02 | 10:15 | 700 | 1287 | no | no | yes | fair |
| 8/12/02 | 9:25 | 355 | 2187 | yes | no | yes | fair |
| 9/16/02 | 10:50 | 354 | 1354 | yes | yes | yes | fair |

Problems: The De Anza pumpout station has no visible signs marking its location. The pumpout station had no suction on July 29th, deeming it useless to boaters.

Bacteria test: The samples passed the single day Total Coliform standard. E.coli exceeded the EPA standard on all dates tested.

Recommendations: none at this time

Bay Club Marina



DATA:

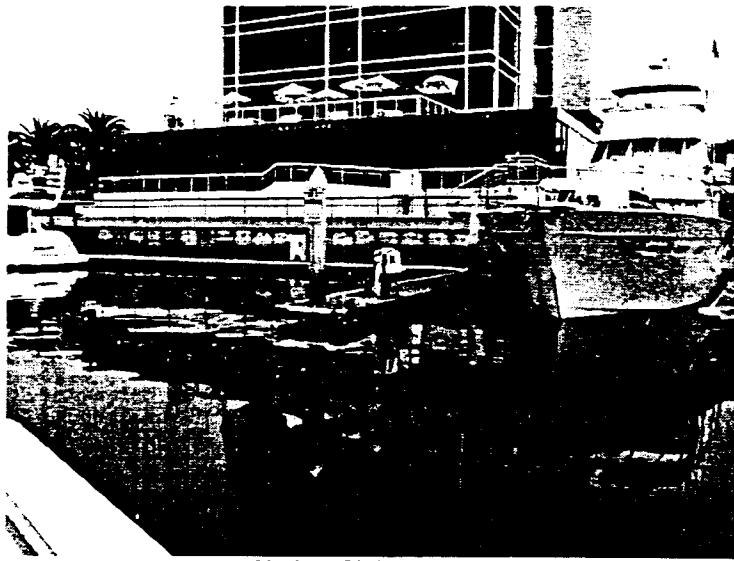
| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 8:15 | no result | no result | yes | yes | yes | fair |
| 7/29/02 | 10:15 | 272 | 384 | yes | yes | yes | fair |
| 8/12/02 | 9:25 | 243 | 907 | yes | yes | yes | fair |
| 9/16/02 | 11:10 | 243 | 547 | yes | yes | yes | fair |

Problems: This sample site does not have any problems currently.

Bacteria tests The samples passed the single day Total Coliform standard. E.coli exceeded the EPA standard on all dates tested.

Recommendations: no recommendations at this time.

Harbor Club Marina



Harbor Club Marina. 7/1/02

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 9:35 | no result | no result | yes | yes | yes | fair |
| 7/29/02 | 11:35 | 504 | 1250 | yes | yes | yes | fair |
| 8/12/02 | 10:00 | 173 | 1211 | yes | yes | yes | fair |
| 9/16/02 | 11:20 | 368 | 801 | yes | yes | yes | fair |

Problems: This pumpout station does not have any problems currently, and is in good operating condition.

Bacteria tests The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on all dates tested.

Recommendations: none

Lido Village Marina



Lido Village Marina. Photo taken 7/1/02 9:45 am.

DATA:

| Date | Time | e-col | total Coliform | from operational | visible | Instructions | access |
|---------|-------|-----------|----------------|------------------|---------|--------------|--------|
| 7/1/02 | 9:45 | no result | no result | yes | yes | yes | fair |
| 7/29/02 | 11:20 | 723 | 723 | yes | yes | yes | no |
| 8/12/02 | 10:08 | | | no | yes | yes | no |
| 9/16/02 | 12:40 | 5,492 | 11,199 | yes | yes | yes | fair |

Problems: Lido Village Marina pumpout station was inoperable on August 12th, and the pumpout station dock was being used as a mooring for a sailboat. On July 29th, the pumpout station was operable, but was blocked by a 32' Chris Craft that remained there for the day.



Photo taken July 29th. 32' Chris Craft blocking operable pumpout vessel. Lido Village Marina

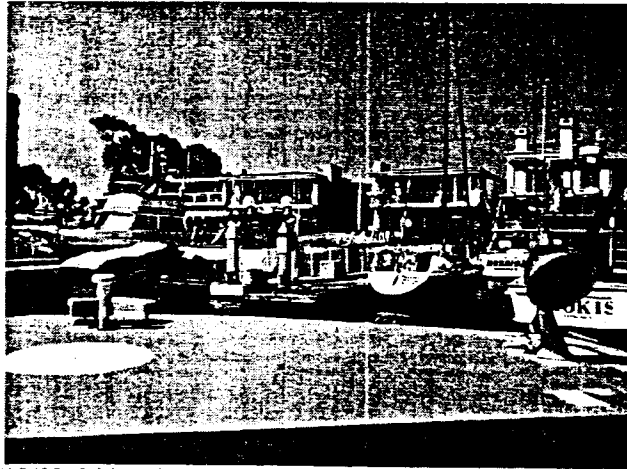


Photo taken 8/12/02. Lido Village Marina pumpout vessel. Sailboat moored blocked pumpout.

Bacteria test results indicate that bacteria counts in the water on 9/16/02 were higher than anywhere in the harbor at any given time. The sampling was done after a boater had used the pumpout station; the boater told the sampler that he had spilled some of the sewage into the water as he was taking the nozzle out of the boat. Total coliform counts were measured at 11,199, exceeding the single sample standard while e-coli counts were measured at 5,492.

Recommendations: The major problem of this pumpout station is access. This pumpout station seems to double as a mooring.

American Legion Yacht Club



Photo taken 7/1/02. Pumpout vessel American Legion Yacht Club.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 10:05 | no result | no result | no | yes | no | fair |
| 7/29/02 | 11:35 | 195 | 884 | yes | yes | no | fair |
| 8/12/02 | 10:20 | 388 | 933 | yes | yes | no | fair |
| 9/16/02 | 12:00 | 512 | 2142 | yes | yes | no | fair |

Problems: This pumpout station has no directions on how to operate it. The pumpout station's nozzle when tested on 7/1/02, leaked waste on to the dock due to improper usage by the last user.

Bacteria test The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on two dates

Recommendations: Most importantly, this pumpout station needs instructions on how to properly operate it; this could have been the reason why on 7/1/02 waste leaked out of the tip when the hose was lifted for testing.

Fernando Street

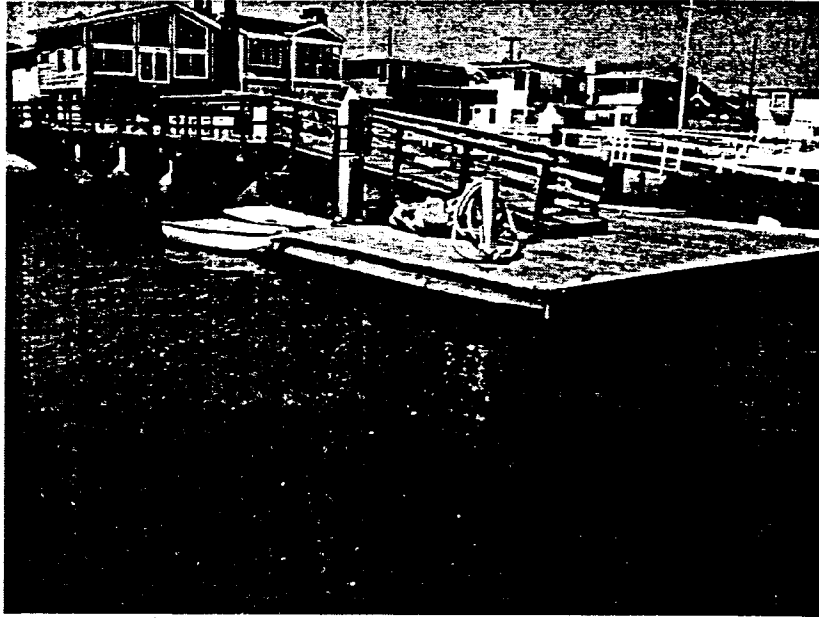


Photo taken 7/29/02. Fernando Street pumpout.

DATA:

| Date | Time | e-coliform | Total Coliform | operational | visible | instructions | access |
|---------|-------|------------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 10:25 | no result | no result | yes | yes | yes | fair |
| 7/29/02 | 11:40 | 723 | 1067 | yes | yes | yes | fair |
| 8/12/02 | 10:35 | 21.1 | 676 | yes | yes | yes | fair |
| 9/16/02 | 12:05 | 285 | 1334 | yes | yes | yes | fair |

Problems: This pumpout station has no directions on how to operate it. On 7/29/02 water surrounding the pumpout station contained brown foam (shown on next page). On 9/16/02 the pumpout stations dock was littered with trash, someone had put their cigarette out on the end of the pumpout station's nozzle, and had used the top of the pumpout station to cut their fishing bait. On the same date (9/16/02) the total coliform bacteria count around the pumpout station was at 1,334.

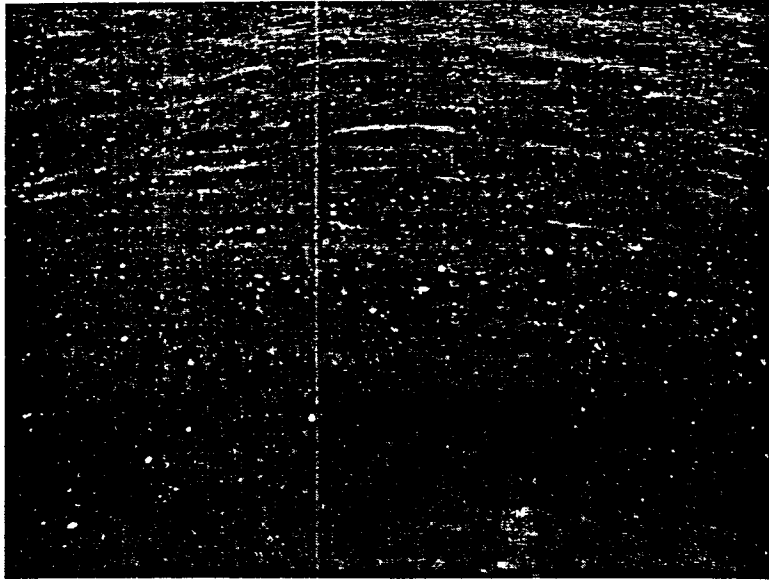


Photo taken 7/29/02 11:40. Brown foam surrounding pumpout.

Bacteria test The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on two dates

Recommendations: The high level of bacteria found on 7/29/02 could also be from misuse of the pumpout station due to the lack of instructions on how to properly operate it. Better patrol of the site needs to take place to insure that the pumpout station's dock is not being misused.

Balboa Fun Zone

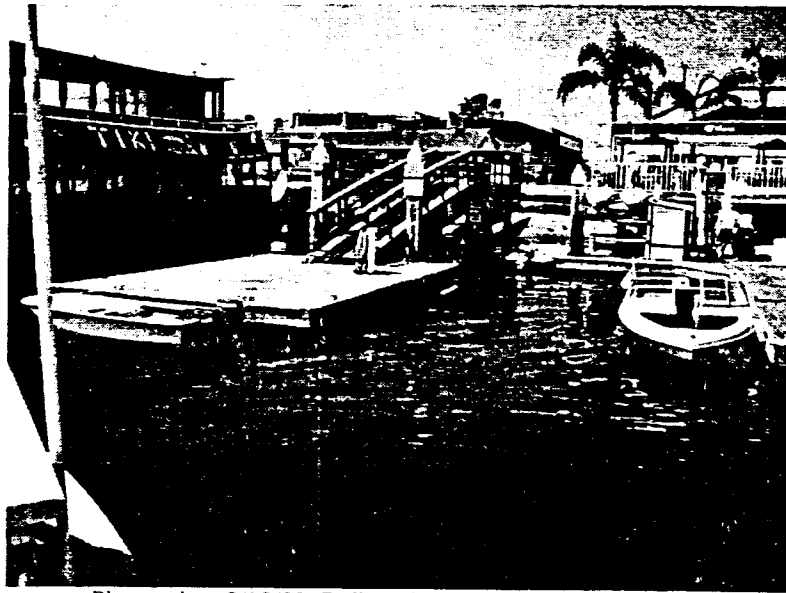


Photo taken 8/19/02. Balboa Fun Zone pumpout vessel.

DATA:

| Date | Time | e-col | Total Coliform | Operational | Visible | Instructions | Access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 10:40 | no result | no result | yes | yes | yes | poor |
| 7/29/02 | 12:00 | 759 | 748 | no | no | no | poor |
| 8/12/02 | | no result | no result | no | no | no | poor |
| 9/16/02 | 12:00 | no result | no result | no | no | no | poor |

Problems: The Balboa Fun Zone was not operable on July 29th, and August 12th. The pumpout had plastic wrapped around it, and the hose had been removed. When the pumpout station was operable, access was bad due to the slips narrow width. As seen in the photo above, the pumpout station dock is narrow, and boats tied up around the dock created a difficult entry for anything larger than a dinghy.



Photo taken 7/29/02. Balboa Fun Zone pumpout inoperable.

Bacteria tests The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard.

Recommendations: Most importantly, this site needs to be operational again.

Harbor Patrol

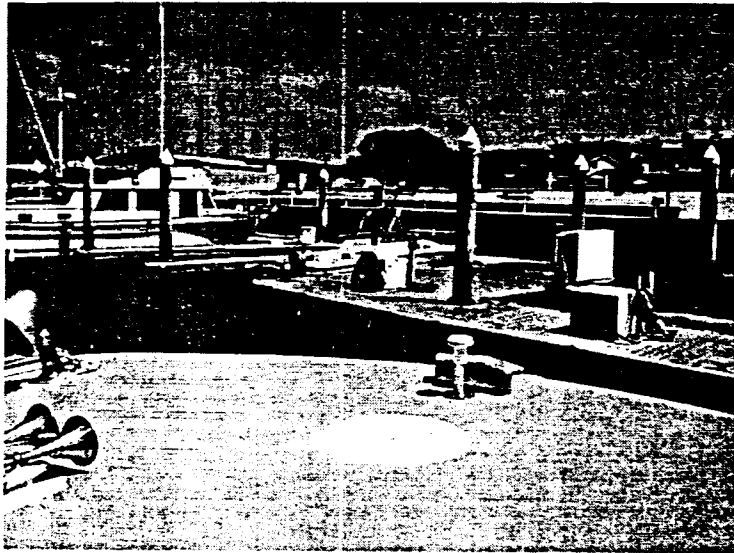


Photo taken 7/1/02. Harbor Patrol pumpout.

DATA:

| Date | Time | Pool | Total | Confirm | Operational | Visible | Instructions | Access |
|---------|-------|-----------|-----------|---------|-------------|---------|--------------|---------|
| 7/1/02 | 11:00 | no result | no result | yes | yes | yes | yes | fair |
| 7/29/02 | 12:10 | 256 | 842 | yes | yes | yes | yes | fair |
| 8/12/02 | 10:54 | 31 | 262 | yes | yes | yes | yes | blocked |
| 9/16/02 | 12:25 | 63 | 439 | no | yes | yes | yes | fair |

Problems: On 8/12/02, there was a boat moored on the Harbor Patrol pumpout station dock for over an hour, causing the pumpout station to be inaccessible. On 9/11/02, and 9/16/02 one of the pumpouts was inoperable, and had a black trash bag over it. The other pumpout station had a broken clamp on the nozzle on 9/16/02, frustrating one boater who tried for over an hour to pump out his tank.

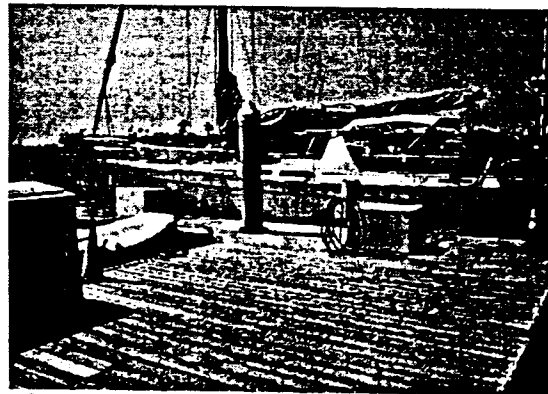
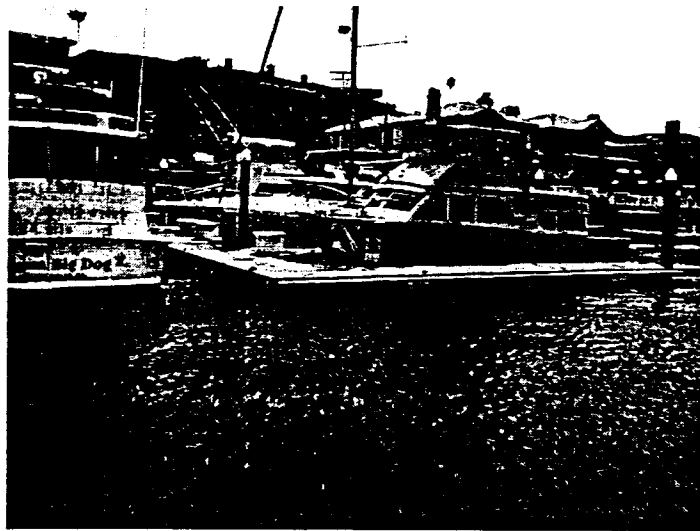


Photo: boat blocking harbor patrol pumpout station for over an hour. Boat was not using pumpout. 8/12/02

Bacteria tests The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on one date.

Recommendations: Thorough patrol of the pumpout station is necessary in order to ensure that they are not misused as a place to temporarily moor a boat. Parts for the pumpout station should be kept in back stock so that if something does go wrong, the pumpout station can be fixed promptly.

Bahia Corinthian



DATA:

| Date | Time | <i>E.coli</i> | Total Coliform | Operational | Visible | Instructions | Access |
|---------|-------|---------------|----------------|-------------|---------|--------------|--------|
| 7/1/02 | 11:10 | no result | no result | no | yes | no | fair |
| 7/29/02 | 12:25 | 359 | 785 | no | yes | no | fair |
| 8/12/02 | 11:00 | no result | no result | no | yes | no | fair |
| 9/16/02 | 12:50 | no result | no result | no | yes | no | fair |

Problems: The Bahia Corinthian Pumpout station did not work on all four sampling dates. The pumpout station is in poor condition.

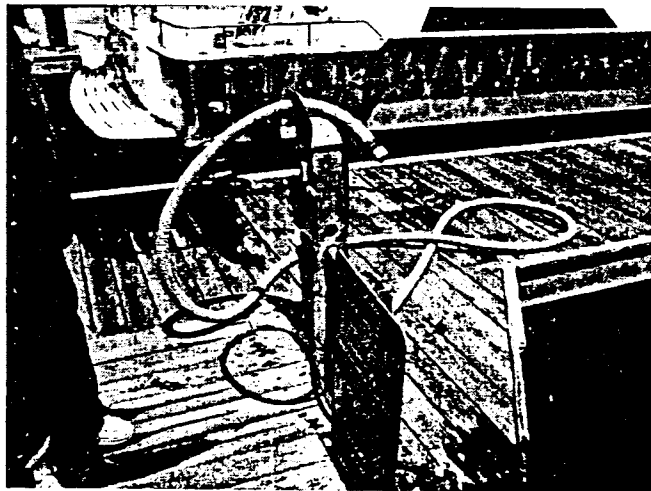


Photo taken 7/29/02. Bahia Corinthian. Where's the nozzle at the end of the hose?

Bacteria: The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard.

Recommendations: This pumpout station has not worked all summer long, and needs to be fixed promptly.

Balboa Yacht Basin

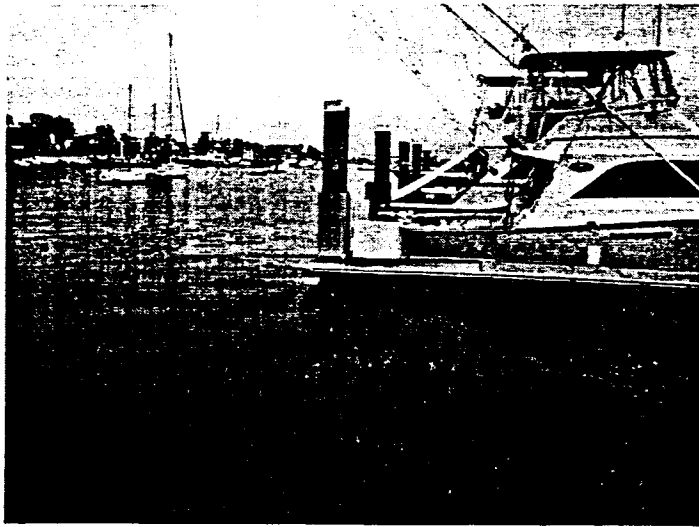


Photo taken 7/1/02. Balboa Yacht Basin.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|---------|
| 7/1/02 | 11:00 | no result | no result | yes | yes | yes | fair |
| 7/29/02 | 12:10 | 256 | 842 | yes | yes | yes | fair |
| 8/12/02 | 10:54 | 31 | 262 | yes | yes | yes | blocked |
| 9/16/02 | 12:25 | 231 | 605 | no | yes | yes | fair |

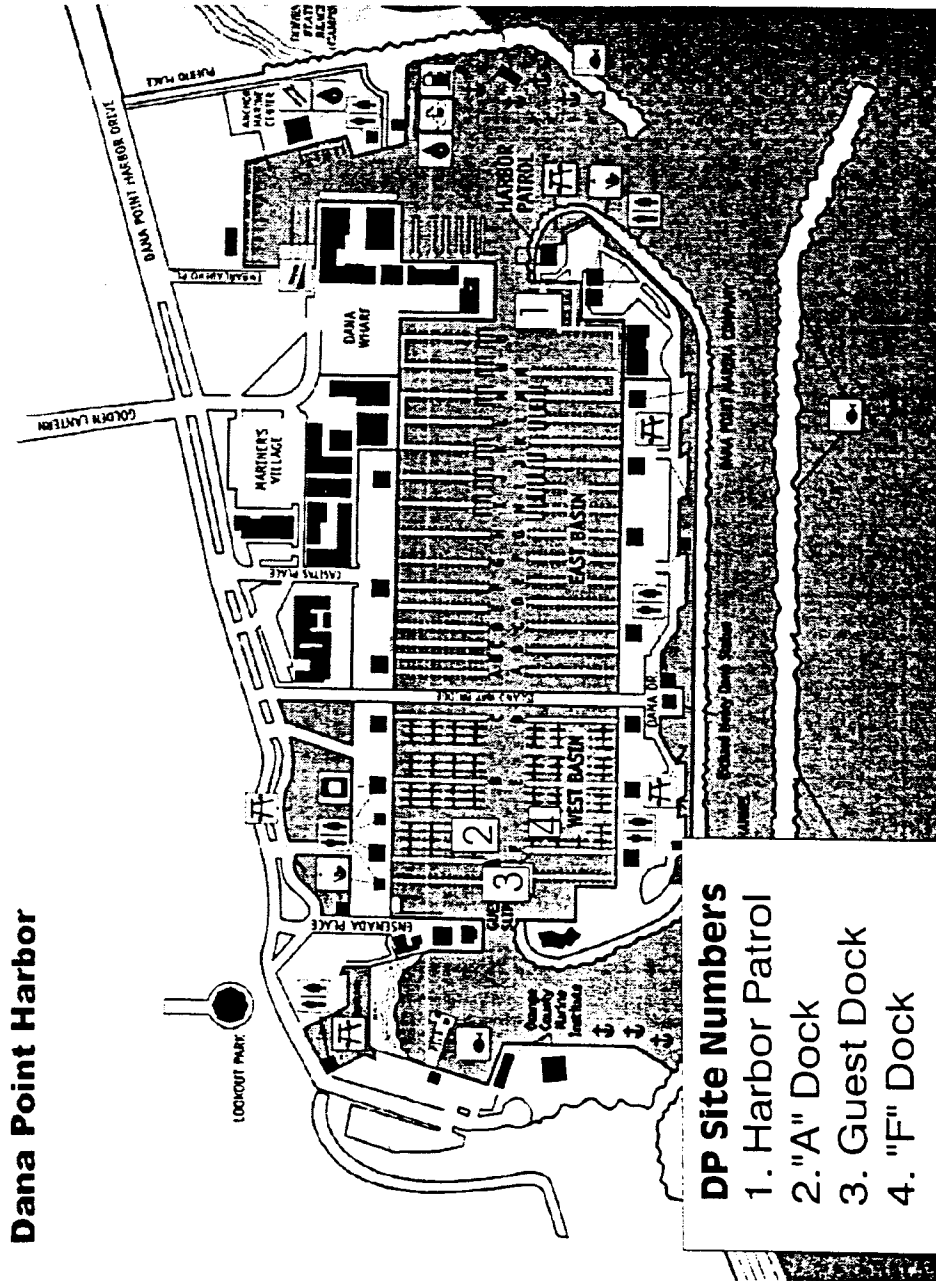
Problem: The pumpout station is not visibly marked for usage.

Bacteria tests The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on two dates

Recommendations: This site needs to have a better marker so that boaters can see it from the water.

Dana Point Harbor Pumpout Station Sampling

Map of sites being sampled



Harbor Patrol Emergency Dock

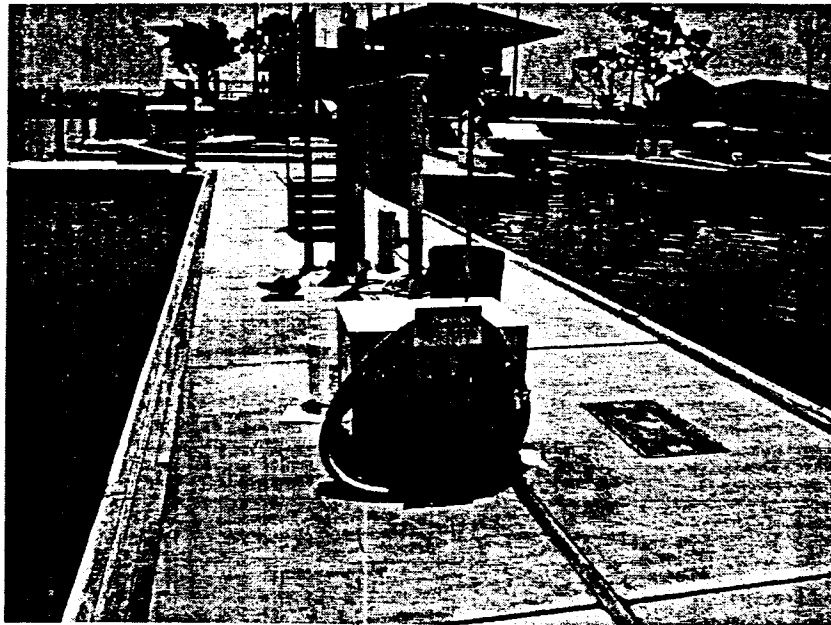


Photo taken July 15th. Harbor Patrol Emergency Dock.

DATA:

| Date | Time | e.coli | Total Coliform | Operational | Visible | Instructions | Access |
|---------|-------|--------|----------------|-------------|---------|--------------|--------|
| 7/15/02 | 11:45 | 41 | 72 | yes | yes | no | fair |
| 8/6/02 | 3:15 | 41 | 41 | yes | yes | no | fair |
| 8/20/02 | 10:10 | 120 | 581 | yes | yes | no | fair |
| 9/10/02 | 3:20 | 20 | 86 | yes | yes | no | fair |

Problems: The only problem at this pumpout station is that there are no directions on how to operate it.

Bacteria results indicate that this site is within standards.

Recommendations: This site needs directions on how to operate the pumpout station.

"A" Dock Side Tie

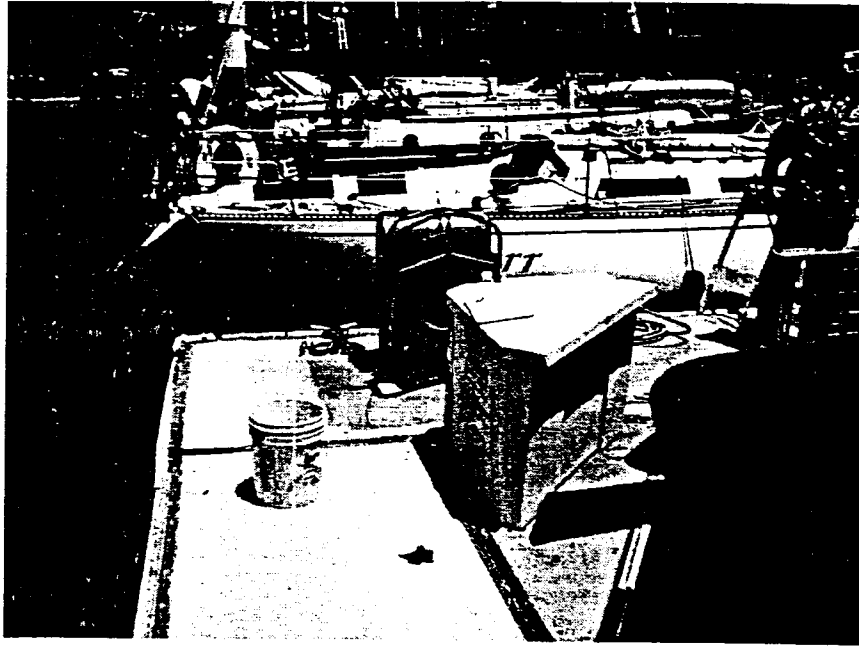


Photo taken 8/22/02. "A" dock side tie.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|-------|--------|----------------|-------------|---------|--------------|--------|
| 7/15/02 | 11:55 | 31 | 122 | yes | no | yes | fair |
| 8/6/02 | 3:00 | 20 | 10 | no | no | yes | fair |
| 8/20/02 | 9:37 | 10 | 332 | no | no | yes | fair |
| 9/10/02 | 2:50 | 10 | 20 | no | no | yes | fair |

Problems: Besides being poorly marked, and hard to access, this pumpout station was not operational August 6th, and August 20th. On August 6th there was a dinghy moored at the inoperable pump.

Bacteria results indicate that this site meets standards.

Recommendations: This pumpout needs to be made operational again. This pumpout station didn't work $\frac{3}{4}$ of the summer.

Harbor Department Guest Docks

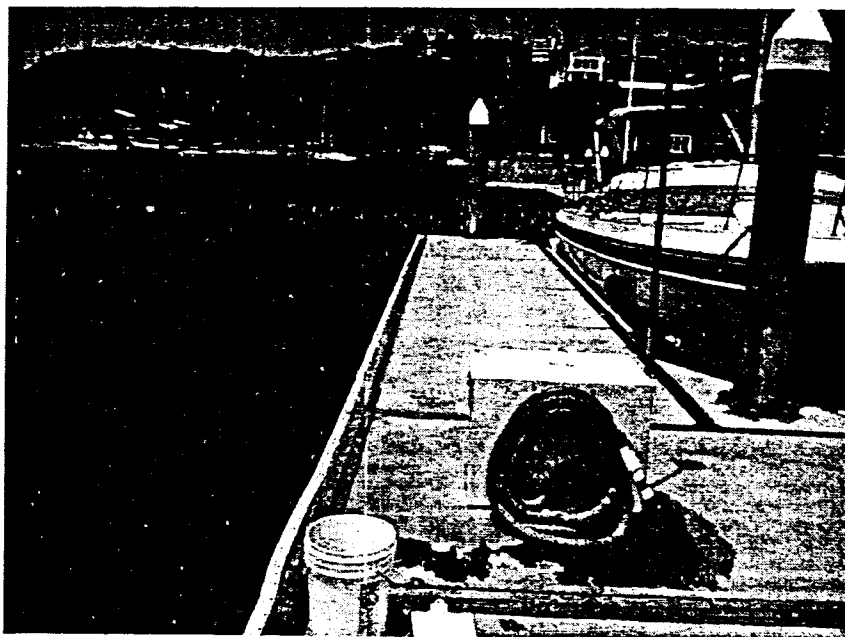


Photo taken 7/15/02. Harbor department guest docks.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | Instructions | access |
|---------|-------|--------|----------------|-------------|---------|--------------|--------|
| 7/15/02 | 11:45 | 20 | 97 | yes | yes | yes | fair |
| 8/6/02 | 2:35 | 20 | 121 | yes | yes | yes | fair |
| 8/20/02 | 9:45 | 62 | 408 | yes | yes | yes | fair |
| 9/10/02 | 2:57 | 52 | <100 | yes | yes | yes | fair |

Problems: none at this time 9/10/02

Bacteria results indicate that the bacteria results meet standards.

Recommendations: none at this time.

"F" Dock

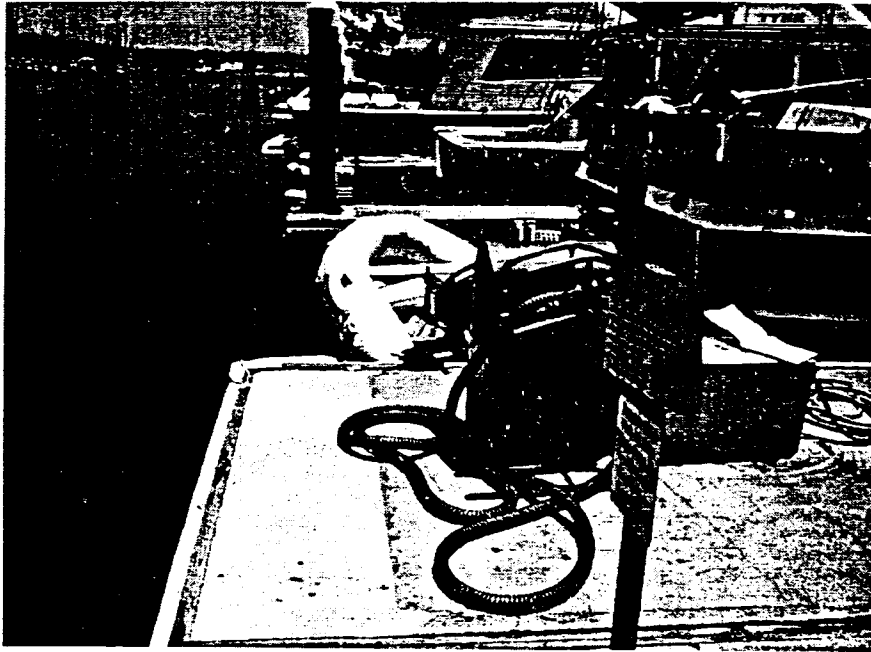


Photo Taken 7/15/02. Dana Point Harbor End of "F" Dock pumpout station.

DATA:

| Date | Time | Temp | Col | from | Operational | Visible | Instructions | Access |
|---------|-------|------|------|------|-------------|---------|--------------|--------|
| 7/15/02 | 11:45 | 20 | 97 | yes | yes | yes | | fair |
| 8/6/02 | 2:35 | 20 | 121 | yes | yes | yes | | fair |
| 8/20/02 | 9:45 | 62 | 408 | yes | yes | yes | | fair |
| 9/10/02 | 2:57 | 52 | <100 | yes | yes | yes | | fair |

Problems: none at this time

Bacteria results show this site is within standards

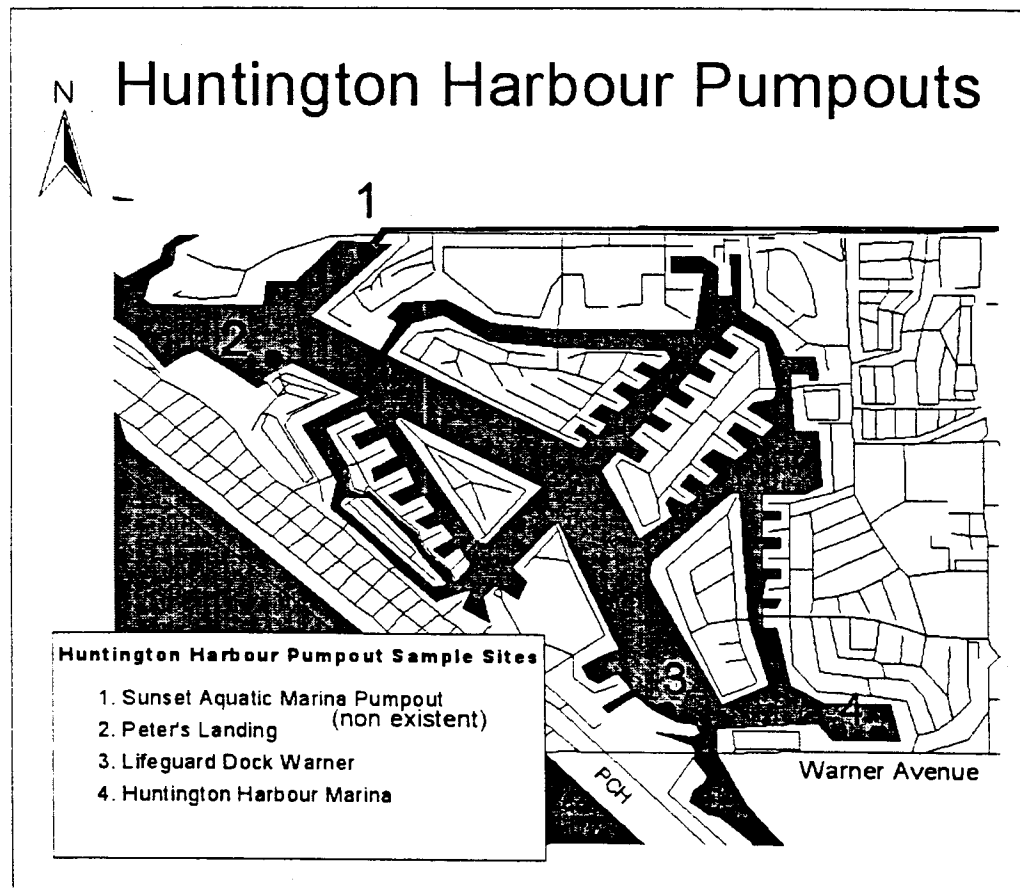
Recommendations: none

Site 5 Dana Point Harbor

Texaco Gas Dock

This pumpout station is inoperable, and looks as though it has been for many years. This pumpout station should be taken off the list of pumpout stations.

Huntington Harbour



Site 1 Huntington Harbor

Sunset Aquatic Marina Pumpout

This Pumpout, and marina are under construction, and have been for a few months.

Site2 Huntington Harbor

Peter's Landing



DATA:

| Date | Time | e-col | Total Coliform | operational | visible | instructions | access |
|---------|-------|-----------|----------------|-------------|---------|--------------|--------|
| 7/15/02 | 8:30 | no result | no result | yes | no | no | fair |
| 8/6/02 | 5:00 | 146 | 809 | no | no | no | fair |
| 8/20/02 | 12:47 | 20 | 275 | yes | no | no | fair |
| 9/10/02 | 8:30 | 63 | 1354 | yes | no | no | fair |

Problems: The Peter's Landing pumpout station is in very poor condition. Besides having no directions on how to operate the vessel properly, and no visible markers to mark its location, this pumpout station was not operating on July 29th.

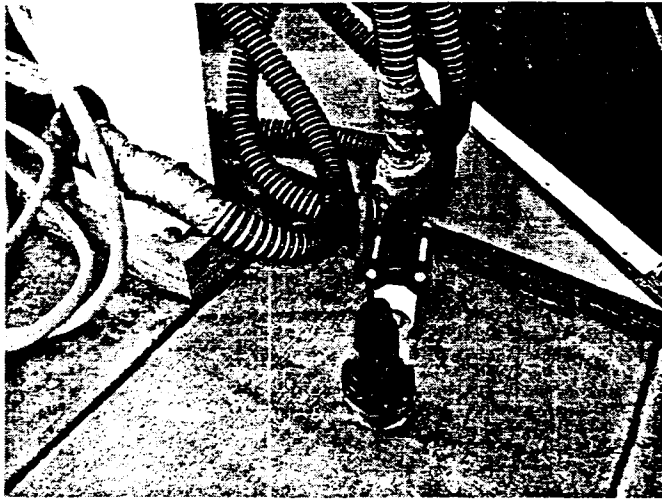


Photo taken 9/10/02. Nozzle duct taped together.

Bacteria tests indicate that this site meets standards.

Recommendations: directions on how to properly operate the pumpout station, a visible sign to mark the pumpout station's location, repairs to the duct taped nozzle, and a new on and off switch.

Lifeguard Dock

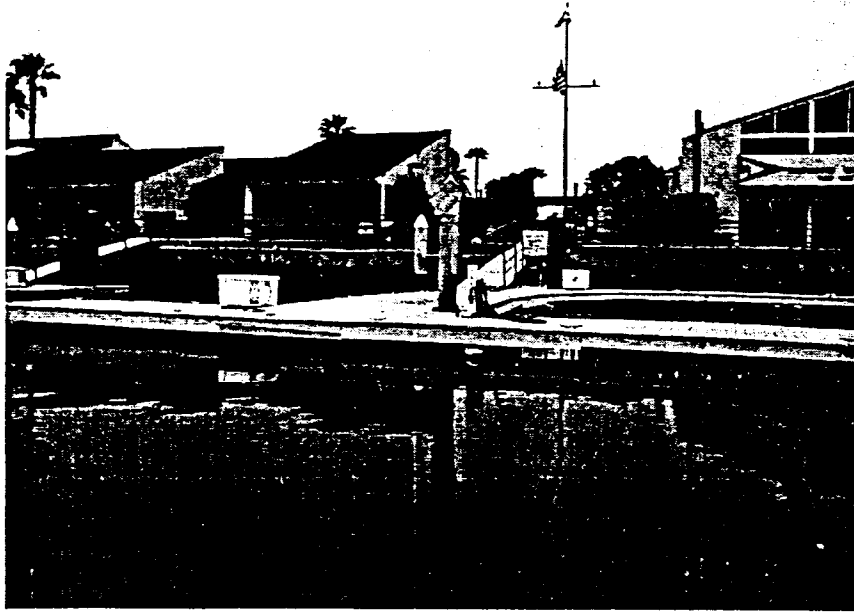


Photo taken 7/3/02. Lifeguard dock Huntington Harbour.

DATA:

| Date | Time | e.coli | Total Coliform | operational | visible | instructions | access |
|---------|------|-----------|----------------|-------------|---------|--------------|--------|
| 7/3/02 | 9:00 | no result | no result | no | yes | yes | fair |
| 7/29/02 | 5:20 | 120 | 2851 | no | yes | no | fair |
| 8/12/02 | 1:03 | 281 | 488 | yes | yes | yes | fair |
| 9/4/02 | 8:47 | 119 | 1067 | yes | yes | yes | fair |

Problems: The Lifeguard Dock Pumpout station had an out of order sign on it July 3rd, and July 29th. On August 12th, the pumpout station was finally working again.

Bacteria test The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on one date.

Recommendations: This pumpout station needs to be better maintained.

Huntington Harbour Marina

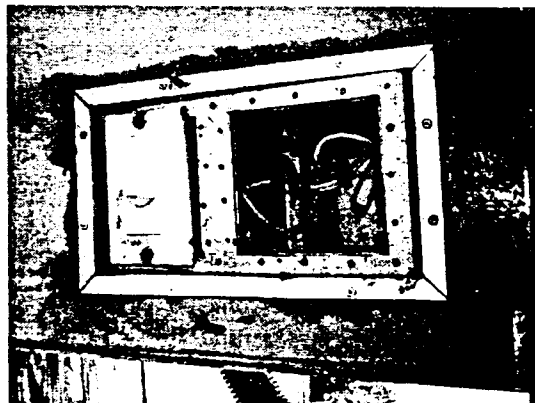
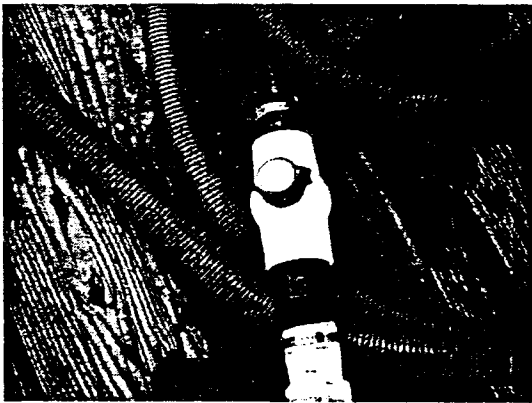


Photo taken July 3rd. Huntington Harbour Marina.

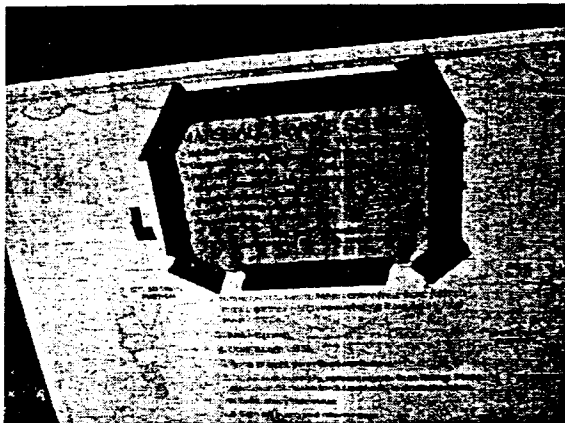
DATA:

| Date | Time | Recd | Total Coliform | Operator | ns | Instructions | Access |
|---------|------|-----------|----------------|----------|-----|--------------|--------|
| 7/3/02 | 9:10 | no result | no result | yes | yes | poor | fair |
| 7/29/02 | 6:45 | 29.4 | 799 | no | yes | poor | fair |
| 8/12/02 | 1:10 | 317 | 472 | yes | yes | poor | fair |
| 9/4/02 | 8:55 | 86 | 538 | no | yes | poor | fair |

Problems: The pumpout station's toggle switch (on and off switch) is hanging from a group of wires near the bottom of the pumpout station. There are handwritten faded directions duct taped on the pumpout station, but there are no signs that clearly mark the pumpout station's location. On July 29th, the pumpout station was not operable.



Photos taken on 9/4/02. Left, valve lever handle broken. Right exposed electrical and on and off switch hanging from pumpout. Below left, photo of directions, and duct taped maintenance contact.



Bacteria test The samples passed the single day Total Coliform standard. *E.coli* exceeded the EPA standard on one date.

Recommendations: A new on and off switch needs to be installed in the pumpout station, new directions need to be posted on the pumpout, and a new valve handle needs to be replaced for proper usage.

Response to Comments

City of Huntington Beach

What is the definition of a Harbor Administrator? As I have indicated, the City does not have a boat or an enforcement presence on the water. Could this be the responsibility of the Orange County Sheriff's Department?

The term Harbor Administrator has been deleted and replaced with the "Cities of Huntington Harbour and Newport Beach". The Cities are expected to implement the inspection and oversight activities listed in the recommended Vessel Sewage Disposal Program. (The County of Orange is expected to oversee and maintain the operation of its pump-out facilities.)

Regional Board staff believes that a boat would not be necessary for the inspections currently stated in the proposed requirements. These inspections could be done on foot.

Monitoring & Maintenance Section - The responsible party for the monitoring requirements outlined in the first paragraph needs to be clearly identified. We are assuming it to be the owner/operator.

The language in the section has been revised and four new paragraphs have been added. The section to which the comment refers to is now number five and has been changed to reflect that the vessel terminal owner/operator is responsible for the inspections.

The permit should clearly define what constitutes a monitoring event. Does the monitoring event include a dye test? A pressure test? A laboratory sample? An on/off switch test? If the owner/operator is required to do more than a simple on/off test, we believe the frequency would be unreasonable.

Inspections of the pump-out stations/dump stations would entail any necessary tests to ensure that they are working properly, such as checks to ensure that there is adequate vacuum pressure from the pump, that valves do not need to be replaced, that the hose is unobstructed and not in need of repairs, and to ensure good housekeeping practices in the area around the pump-out station/dump station, i.e. that the hoses are not lying on the slips threatening back flow of sewage containing water into Newport Bay or Huntington Harbour. Finally, the inspections are to be conducted to assure that any necessary or routine maintenance required by the manufacturer of the pump-out station/dump station is done regularly, and ensure that signs are legible at all times and contain accurate information.

Regional Board staff does not believe that the proposed monitoring frequency is unreasonable, particularly given the possible threat of discharges of sewage to these sensitive waters.

The inspection frequency for the Harbor Administrator is also unreasonable, even

if the intent of the monitoring event is an on/off test. We recommend the frequency be reduced to one per month for the Harbor Administrator requirement.

Regional Board staff agrees that once per month monitoring frequency is appropriate and the revised proposed requirements reflect that change (See Section E.8, of the proposed Vessel Sewage Disposal Program).

The requirement for repairs within 24 hours is also unreasonable for major repairs. For example, if the pump motor fails, it would take a minimum of 7 working days to get a new pump then a couple days to install. To send the pump in for a repair would also take approximately one week. A reasonable time requirement for a major repair would be two weeks with a "out of operation notice" and map to nearest operational pump out.

Regional Board staff agrees that in some cases, the language might create an unreasonable burden on the owner/operator to ensure that repairs are done within 24 hours. The language has been revised to specify that repairs be completed within 24 hours where the repair involves replacement of a readily available part. The revised language specifies that if more significant repairs are required, then the repairs must be initiated within 24 hours. The Initiation of repairs in 24 hours means that the owner/operator of the vessel terminal would secure the services of a licensed plumbing contractor, who would assess the reason that the pump-out station/dump station is not working properly, identify the steps required to bring that pump-out station/dump station back into working order, and identify a reasonable time frame to complete the necessary repairs. The vessel owner/operator would be required to initiate the repairs promptly, and to take all reasonable steps to assure that the repairs are completed within the time frame identified by the contractor. The vessel terminal owner would also post a sign on the pump-out station/dump station indicating that it is not working with a map of other locations of pump-out stations/dump stations.

Enforcement - There is no mention of enforcement actions to be taken should a violation be found. Details on fines, etc. should be included. Is it possible to have the fines generated in the Harbour returned to the Harbour for various water quality improvements?

Pursuant to the California Water Code, the Regional Board has enforcement authority to address the illegal discharges of wastes to waters within its jurisdiction. This can include the assessment of administrative civil liability (monetary penalties). A part of these penalties could be assigned to support a Supplemental Environmental Project (SEP) that would benefit Huntington Harbour or Newport Bay. The approval of such SEPs is at the discretion of the Regional Board.

Dump Stations - We do not know what these are and request the installation requirement be removed.

Dump stations are receptacles for use by vessel owners/operators with portable toilets. Regional Board staff disagrees that dump stations should be removed from the proposed

requirements since sources of sewage discharges into Huntington Harbour and Newport Bay may include illegal discharges from portable toilets as well as illegal discharges from marine sanitation devices/holding tanks from installed toilets.

We have concerns with allowing the public onto private Home Owner Association's docks and property. Liability issues should be reviewed.

The proposed Vessel Sewage Disposal Program includes the recommendation that the State Board require the installation of pump-out and dump stations at private vessel terminals. The expectation is that these installed facilities would be for the use of the vessels occupying these terminals, and not necessarily for use by the public.

Also, there is no mention of cost to the public to use the pump out. A marina operator may charge an unreasonable amount to deter the public from using the facility. Cost containment guidelines may be useful.

The Division of Boating and Waterways allows vessel terminal owners/operators to charge a maximum of \$5 for the use of the pump-out station/dump station. Regional Board staff agrees that it is important to include a cost containment provision and has modified the proposed language to reflect the cost issue.

Pump out operating hours should also be stated, i.e. 24 hours/day.

Regional Board staff agrees that pump-out operating hours need to be stated in the proposed language and will change the proposed language to include that the pump-out station/dump station be operational 24 hrs/day.

Orange County CoastKeeper Comments

Dump stations should be omitted. They are not relevant to Southern California salt water marinas. Dump stations are for very rural lake and fresh water river areas. This standard does not apply to the circumstances of Southern California. Any requirement to provide dump stations is an unnecessary financial burden as there are not many moored vessels with portable toilets. The only real need is a public restroom facility at public boat launch ramps, which are already provided.

The proposed language is consistent with Department of Boating and Waterways guidelines and aims at addressing all sources of sewage from vessels such as those from portable toilets and installed toilets. Omitting the need for dump stations would not be addressing the threat of sewage discharges into Newport Bay and Huntington Harbour from the portable toilets.

We agree with this section [requirement for repairs], but would suggest “repairs be initiated within a 24 hour period from learning a pump-out is inoperable” be substituted for “...ensure that a pump-out station and dump station is inoperable for no more than 24

hours.” It is more realistic to commence repairs within 24 hours and work diligently to make the repairs expeditiously.

Regional Board staff agrees with this comment and has revised the proposed requirements. See also the response to the City of Huntington Beach regarding this issue.

We appreciate the attempt to deal with the problem of illegal discharging of waste specifically by live-aboard vessels, however, this section needs more work. Most all marinas currently prohibit vessels that do not mechanically run, though enforcement is another matter. The second paragraph that pertains to running vessels needs to be rewritten not only to promote best management practices, but to go further and permit live-aboards under a municipal permit procedure that requires annual inspections of the vessels to make sure it is incapable of discharging into harbors. Currently prohibitions of live-aboard vessels are unenforceable, it would be much more effective to enable live-aboards with permit and inspections.

Regional Board staff believe that discharges from live-aboards pose a significant threat to water quality in Newport Bay and Huntington Harbour. These discharges should be addressed in the Vessel Sewage Disposal Program to ensure protection of Huntington Harbour and Newport Bay. We believe that the recommended language is appropriate. The language does not prohibit live-aboards, but requires notification and periodic inspection to insure that vessel waste discharges do not occur. This does not preclude the adoption of a municipal permit process, as recommended in the comment.

Table 1: Newport Bay Vessel Terminals, Anchorages, Piers, Pump-outs and Dump Stations - April 2003 Survey

| Name | Address | Phone | Slips | Pump Out On Site - Yes / No | Vessel Terminal Classification / Pump-out | Dump Station on site - yes/no | Vessels under 26 feet |
|---|---------------------------------------|----------------|-------|-----------------------------|---|-------------------------------|-----------------------|
| Port Calypso* | 2633 West Coast Hwy, 92663 | (949) 645-6900 | 50 | No | Private | No | no data |
| Ardell Marina* | 2101 West Coast Hwy, 92663 | (949) 642-5735 | 55 | No | Private | No | 2 |
| Swales Yacht Anchorage* | 2888 Bayshore Dr, 92663 | (949) 548-1501 | 57 | No | Private | No | 17 |
| Bayshores Marina* | 301 Shipyard Way, 92663 | (949) 723-7781 | 135 | No | Private | No | 62 |
| Bahia Corinthian Yacht Club* | 1601 Bayside Dr, 92625 | (949) 644-9530 | 75 | No | Private | No | 1 |
| Icon Yacht Charters | 3400 Via Oporto, STE 104, 92663 | Unknown | 1 | Yes | Private / Private | No | n/a |
| Larson's Shipyard | 2703 W. Coast Hwy, 92663 | (949) 650-2688 | 1 | Yes | Private / Private | No | n/a |
| Nautical Museum | 151 E. Coast Hwy, 92660 | (949) 673-0300 | 1 | Yes | Private / Private | No | n/a |
| Adventures at Sea | 3101 W. Coast Hwy, STE 209, 92663 | (949) 650-2412 | 3 | Yes | Private / Private | No | n/a |
| Pavilion | 111 & 111 1/2 Marine Ave, 92662 | (949) 632-6363 | 5 | Yes | Private / Private | No | n/a |
| Hornblower Yacht Charter | 2431 W. Coast Hwy, 92663 | (949) 646-0155 | 6 | Yes | Private / Private | No | n/a |
| Orca Yacht Charters | 2901 W. Coast Hwy, 92663 | (949) 650-6722 | 6 | Yes | Private / Private | No | n/a |
| Fun Zone Boat Co. | 600 Edgewater Place, 92661 | (949) 673-0240 | 10 | Yes | Private / Private | No | n/a |
| Crow's Nest Marina | 2801 W. Coast Highway, STE 260, 92663 | (949) 574-7600 | 20 | Yes | Private / Private | No | n/a |
| Lido Yacht Anchorage / Dry Storage (Bellport)#* (1additional pump-out station proposed) | 201 Shipyard Way, STE 1, 92663 | (949) 673-9330 | 265 | Yes | Private / Private | No | 17 |
| American Legion (use 15th St. public pier) | 215 15th Street, 92663 | (949) 673-5070 | 50 | Yes | Private / Public | No | 0 |
| Harbor Marina | 3333 W. Coast Hwy, 92663 | Unknown | 50 | Yes | Private / Public | No | 10 |
| Lido Village Marina | 3400 Via Oporto, STE 104, 92663 | (949) 675-8662 | 85 | Yes | Private / Public | No | 15-18 |
| Balboa Bay Club | 1221 West Coast Hwy, 92663 | (949) 654-5000 | 140 | Yes | Private / Public | No | no data |
| Balboa Yacht Basin | 829 Harbor Island Dr, 92660 | (949) 673-1761 | 171 | Yes | Private / Public | No | 4 |
| Bayside Village (De Anza)# | 300 East Coast Hwy, 92660 | (949) 673-1331 | 225 | Yes | Private / Public | No | 100 |
| Newport Dune Resort Marina & Launch# | 101 N. Bayside Dr, 92660 | (949) 729-1100 | 232 | Yes (2) | Private / Public | No | |
| Bayside Marina (Bellport)* (1additional pump-out stations proposed) | 1137 Bayside Dr, 92625 | (949) 644-9730 | 485 | Yes | Private / Public | No | 26 |
| 15th St. Public Pier | 15th St. | tbd | 0 | Yes | Public | No | n/a |
| Fernando St. Public Pier | Fernando St. | tbd | 0 | Yes | Public | No | n/a |
| Harbor Patrol | 1901 Bayside Dr, 92625 | (949) 723-1002 | 0 | Yes (2) | Public | No | n/a |
| Washington St. Public Pier | Balboa Pavilion - Fun Zone | tbd | 0 | Yes | Public | No | n/a |
| Blue Water Grill | to be determined | tbd | tbd | yes | Private/Private | No | n/a |
| Lido Peninsula | to be determined | tbd | tbd | yes | Private/Private | No | n/a |
| * proposed pump-out station | | | | | | | |
| #Proposed dump station | | | | | | | |
| Public means available for public use | | | | | | | |
| Private means not available for public use | | | | | | | |
| None/Private means no pump-out station, private marina | | | | | | | |
| Private/Private means private marina/ private pump-out station | | | | | | | |
| Private/Public means private marina, public pump-out station | | | | | | | |
| Public/not a marina means public pump-out station at a public dock | | | | | | | |

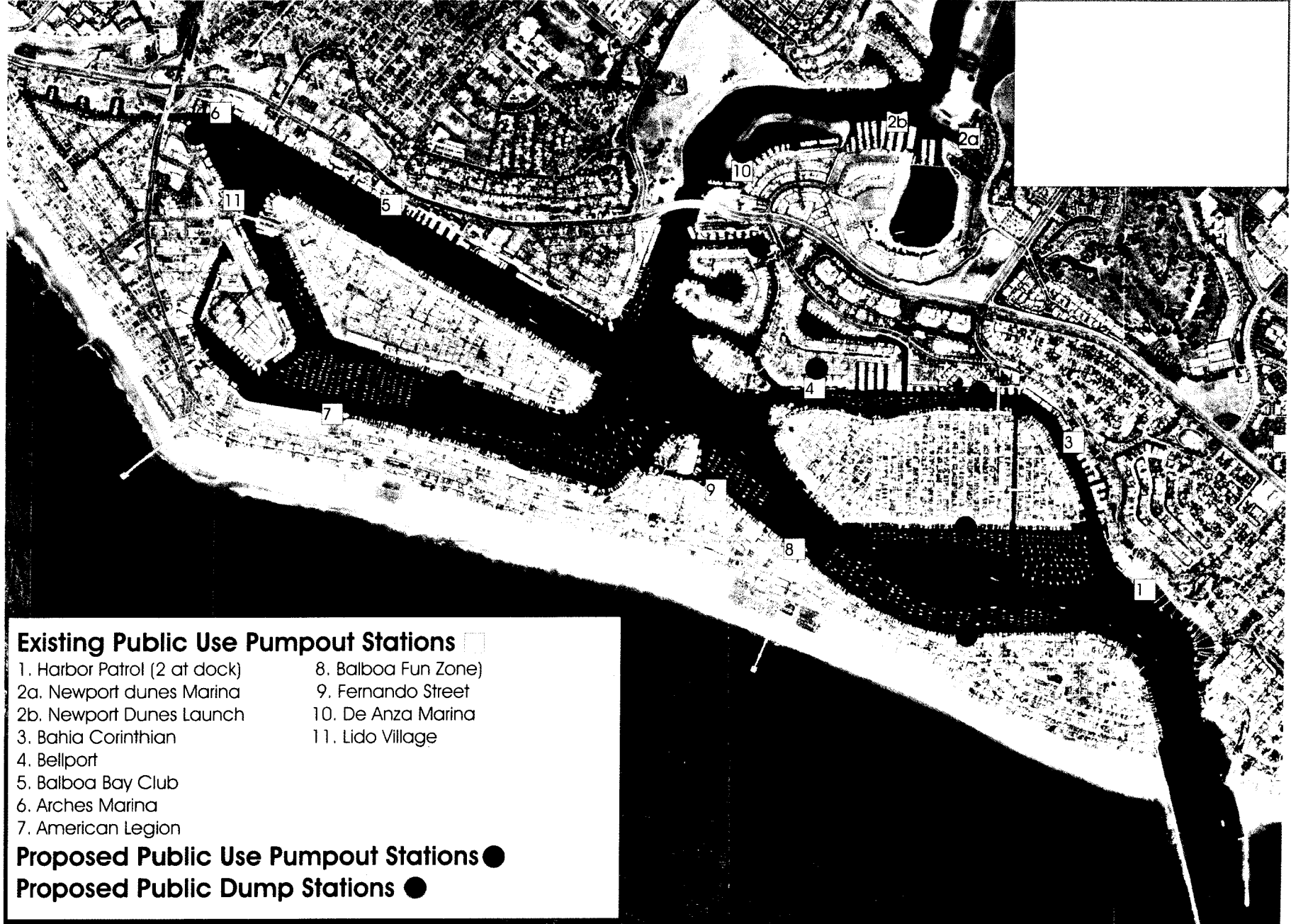
| Name | Address | Phone | Slips | Pump Out On Site - Yes / No | Pump-out / Vessel terminal Classification | Dump Station on site - yes/no | Vessels under 26' |
|--|--|----------------|-------|-----------------------------------|---|-------------------------------------|----------------------|
| Davenport Marina* | 4052 Davenport Drive, Huntington Beach 92649 | (714) 840-6285 | 65 | No | none/Private | No | no data |
| Coral Cay Marina* | 27405 Puerta Real Suite 300, Mission Viejo 92691 | (949) 582-7770 | 58 | No | none/Private | No | 15 |
| Tennis Club Estates* | 2888 Bayshore Dr, 92663 | (714) 846-3225 | 63 | No | none/Private | No | 15 |
| Harbor Lane Condos | 13812 Goldenwest Street Suite 100, Westminster 92683 | (714) 846-6725 | 62 | No | none/Private | No | 21 |
| Portofino Marina | 1601 Bayside Dr, 92625 | (714) 377-9349 | 49 | No | none/Private | No | n/a |
| Peters Landing Marina | 16400 Pacific Coast Highway Suite 108, Huntington Beach 92649 | (714) 840-1387 | 325 | Yes | Public/Private | No | 10 |
| Huntington Marina | 4281 Warner, Huntington Beach 92646 | (714) 840-5545 | 190 | Yes | Public/Private | No | 12 |
| Sunset Aquatic Marina# (2 dump stations proposed) | 2901 A Edinger Ave Huntington Beach 92649 | (714) 846-0179 | 262 | Yes | Public/Private | No | 100 |
| Lifeguard Dock# | City of Huntington Beach | Unknown | 0 | Yes | Public/not a marina | No | n/a |
| * proposed pump-out stations | | | | | | | |
| #proposed dump station | | | | | | | |
| Public means available for public use | | | | | | | |
| Private means not available for public use | | | | | | | |
| None/Private means no pump-out station, private marina | | | | | | | |
| Private/Private means private pump-out station, private marina | | | | | | | |
| Private/Public means private pump-out station, public marina | | | | | | | |
| Public/not a marina means public pump-out station at a public dock | | | | | | | |

Table 3
Regional Board Staff Survey Results

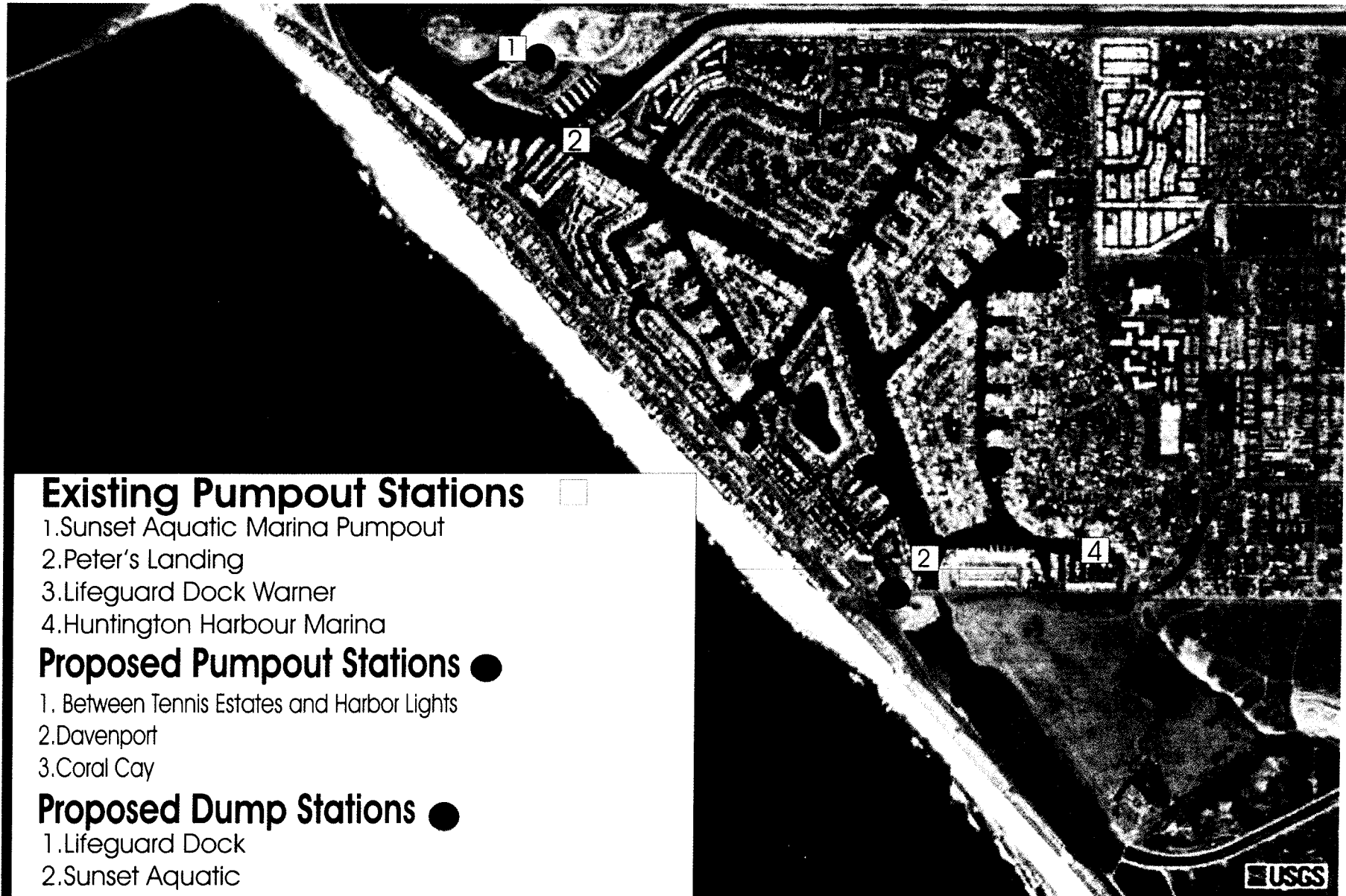
| Huntington Harbour Pump-out Stations | | | | |
|---|-----------------|---------------|---------------------------|--------------------------|
| | Public Restroom | Pump-out Sign | Pump-out Station Operable | Operational Instructions |
| Marina | | | | |
| Peters Landing (1) | yes | no | yes (duct tape on hose) | no |
| Huntington Harbour Patrol Access (Sunset Aquatic) (2) | yes | no | no | no |
| Lifeguard Dock | yes | yes | no (pump not hooked up) | yes |
| Weatherly Bay - Huntington Marina | | | | |
| Huntington Marina | | | | |
| -exposed wires | | | | |
| -nozzle broken | yes | yes | no (pump not hooked up) | yes (weathered) |
| -valve broken off | | | | |
| -weathered | | | | |

| Newport Bay Pump-out Stations | | | | |
|--------------------------------------|-----------------|---------------|---------------------------|--------------------------|
| | Public Restroom | Pump-out Sign | Pump-out Station Operable | Operational Instructions |
| Blue Water Grill (no access) | yes | yes | | yes |
| Newport Dunes Resort Marina | yes | yes | yes | yes |
| if pump fails, call (949) 644-3034 | yes | yes | yes | no |
| map | | | | |
| Newport Dunes Launch Ramp accessible | | | | |
| Bayside Village | no | yes | yes | yes |
| sign is in bad shape | | | | |
| Balboa Bay Club | no | yes | yes | no |
| Harbor Marina | no | yes | yes | yes |
| Lido Village | yes | yes | yes | no |
| Lido Peninsula | yes | yes | yes | no |

Newport Harbor Existing and Proposed Public Use Pumpout and Dump Stations



Huntington Harbour Existing and Proposed Public Use Pumpout and Dump Stations



Response to Comments

City of Huntington Beach

What is the definition of a Harbor Administrator? As I have indicated, the City does not have a boat or an enforcement presence on the water. Could this be the responsibility of the Orange County Sheriff's Department?

The term Harbor Administrator has been deleted and replaced with the "Cities of Huntington Harbour and Newport Beach". The Cities are expected to implement the inspection and oversight activities listed in the recommended Vessel Sewage Disposal Program. (The County of Orange is expected to oversee and maintain the operation of its pump-out facilities.)

Regional Board staff believes that a boat would not be necessary for the inspections currently stated in the proposed requirements. These inspections could be done on foot.

Monitoring & Maintenance Section - The responsible party for the monitoring requirements outlined in the first paragraph needs to be clearly identified. We are assuming it to be the owner/operator.

The language in the section has been revised and four new paragraphs have been added. The section to which the comment refers to is now number five and has been changed to reflect that the vessel terminal owner/operator is responsible for the inspections.

The permit should clearly define what constitutes a monitoring event. Does the monitoring event include a dye test? A pressure test? A laboratory sample? An on/off switch test? If the owner/operator is required to do more than a simple on/off test, we believe the frequency would be unreasonable.

Inspections of the pump-out stations/dump stations would entail any necessary tests to ensure that they are working properly, such as checks to ensure that there is adequate vacuum pressure from the pump, that valves do not need to be replaced, that the hose is unobstructed and not in need of repairs, and to ensure good housekeeping practices in the area around the pump-out station/dump station, i.e. that the hoses are not lying on the slips threatening back flow of sewage containing water into Newport Bay or Huntington Harbour. Finally, the inspections are to be conducted to assure that any necessary or routine maintenance required by the manufacturer of the pump-out station/dump station is done regularly, and ensure that signs are legible at all times and contain accurate information.

Regional Board staff does not believe that the proposed monitoring frequency is unreasonable, particularly given the possible threat of discharges of sewage to these sensitive waters.

The inspection frequency for the Harbor Administrator is also unreasonable, even

if the intent of the monitoring event is an on/off test. We recommend the frequency be reduced to one per month for the Harbor Administrator requirement.

Regional Board staff agrees that once per month monitoring frequency is appropriate and the revised proposed requirements reflect that change (See Section E.8, of the proposed Vessel Sewage Disposal Program).

The requirement for repairs within 24 hours is also unreasonable for major repairs. For example, if the pump motor fails, it would take a minimum of 7 working days to get a new pump then a couple days to install. To send the pump in for a repair would also take approximately one week. A reasonable time requirement for a major repair would be two weeks with a "out of operation notice" and map to nearest operational pump out.

Regional Board staff agrees that in some cases, the language might create an unreasonable burden on the owner/operator to ensure that repairs are done within 24 hours. The language has been revised to specify that repairs be completed within 24 hours where the repair involves replacement of a readily available part. The revised language specifies that if more significant repairs are required, then the repairs must be initiated within 24 hours. The Initiation of repairs in 24 hours means that the owner/operator of the vessel terminal would secure the services of a licensed plumbing contractor, who would assess the reason that the pump-out station/dump station is not working properly, identify the steps required to bring that pump-out station/dump station back into working order, and identify a reasonable time frame to complete the necessary repairs. The vessel owner/operator would be required to initiate the repairs promptly, and to take all reasonable steps to assure that the repairs are completed within the time frame identified by the contractor. The vessel terminal owner would also post a sign on the pump-out station/dump station indicating that it is not working with a map of other locations of pump-out stations/dump stations.

Enforcement - There is no mention of enforcement actions to be taken should a violation be found. Details on fines, etc. should be included. Is it possible to have the fines generated in the Harbour returned to the Harbour for various water quality improvements?

Pursuant to the California Water Code, the Regional Board has enforcement authority to address the illegal discharges of wastes to waters within its jurisdiction. This can include the assessment of administrative civil liability (monetary penalties). A part of these penalties could be assigned to support a Supplemental Environmental Project (SEP) that would benefit Huntington Harbour or Newport Bay. The approval of such SEPs is at the discretion of the Regional Board.

Dump Stations - We do not know what these are and request the installation requirement be removed.

Dump stations are receptacles for use by vessel owners/operators with portable toilets. Regional Board staff disagrees that dump stations should be removed from the proposed

requirements since sources of sewage discharges into Huntington Harbour and Newport Bay may include illegal discharges from portable toilets as well as illegal discharges from marine sanitation devices/holding tanks from installed toilets.

We have concerns with allowing the public onto private Home Owner Association's docks and property. Liability issues should be reviewed.

The proposed Vessel Sewage Disposal Program includes the recommendation that the State Board require the installation of pump-out and dump stations at private vessel terminals. The expectation is that these installed facilities would be for the use of the vessels occupying these terminals, and not necessarily for use by the public.

Also, there is no mention of cost to the public to use the pump out. A marina operator may charge an unreasonable amount to deter the public from using the facility. Cost containment guidelines may be useful.

The Division of Boating and Waterways allows vessel terminal owners/operators to charge a maximum of \$5 for the use of the pump-out station/dump station. Regional Board staff agrees that it is important to include a cost containment provision and has modified the proposed language to reflect the cost issue.

Pump out operating hours should also be stated, i.e. 24 hours/day.

Regional Board staff agrees that pump-out operating hours need to be stated in the proposed language and will change the proposed language to include that the pump-out station/dump station be operational 24 hrs/day.

Orange County CoastKeeper Comments

Dump stations should be omitted. They are not relevant to Southern California salt water marinas. Dump stations are for very rural lake and fresh water river areas. This standard does not apply to the circumstances of Southern California. Any requirement to provide dump stations is an unnecessary financial burden as there are not many moored vessels with portable toilets. The only real need is a public restroom facility at public boat launch ramps, which are already provided.

The proposed language is consistent with Department of Boating and Waterways guidelines and aims at addressing all sources of sewage from vessels such as those from portable toilets and installed toilets. Omitting the need for dump stations would not be addressing the threat of sewage discharges into Newport Bay and Huntington Harbour from the portable toilets.

We agree with this section [requirement for repairs], but would suggest “repairs be initiated within a 24 hour period from learning a pump-out is inoperable” be substituted for “...ensure that a pump-out station and dump station is inoperable for no more than 24

hours.” It is more realistic to commence repairs within 24 hours and work diligently to make the repairs expeditiously.

Regional Board staff agrees with this comment and has revised the proposed requirements. See also the response to the City of Huntington Beach regarding this issue.

We appreciate the attempt to deal with the problem of illegal discharging of waste specifically by live-aboard vessels, however, this section needs more work. Most all marinas currently prohibit vessels that do not mechanically run, though enforcement is another matter. The second paragraph that pertains to running vessels needs to be rewritten not only to promote best management practices, but to go further and permit live-aboards under a municipal permit procedure that requires annual inspections of the vessels to make sure it is incapable of discharging into harbors. Currently prohibitions of live-aboard vessels are unenforceable, it would be much more effective to enable live-aboards with permit and inspections.

Regional Board staff believe that discharges from live-aboards pose a significant threat to water quality in Newport Bay and Huntington Harbour. These discharges should be addressed in the Vessel Sewage Disposal Program to ensure protection of Huntington Harbour and Newport Bay. We believe that the recommended language is appropriate. The language does not prohibit live-aboards, but requires notification and periodic inspection to insure that vessel waste discharges do not occur. This does not preclude the adoption of a municipal permit process, as recommended in the comment.

Table 1: Newport Bay Vessel Terminals, Anchorages, Piers, Pump-outs and Dump Stations - April 2003 Survey

| Name | Address | Phone | Slips | Pump Out On Site - Yes / No | Vessel Terminal Classification / Pump-out | Dump Station on site - yes/no | Vessels under 26 feet |
|---|---------------------------------------|----------------|-------|-----------------------------|---|-------------------------------|-----------------------|
| Port Calypso* | 2633 West Coast Hwy, 92663 | (949) 645-6900 | 50 | No | Private | No | no data |
| Ardell Marina* | 2101 West Coast Hwy, 92663 | (949) 642-5735 | 55 | No | Private | No | 2 |
| Swales Yacht Anchorage* | 2888 Bayshore Dr, 92663 | (949) 548-1501 | 57 | No | Private | No | 17 |
| Bayshores Marina* | 301 Shipyard Way, 92663 | (949) 723-7781 | 135 | No | Private | No | 62 |
| Bahia Corinthian Yacht Club* | 1601 Bayside Dr, 92625 | (949) 644-9530 | 75 | No | Private | No | 1 |
| Icon Yacht Charters | 3400 Via Oporto, STE 104, 92663 | Unknown | 1 | Yes | Private / Private | No | n/a |
| Larson's Shipyard | 2703 W. Coast Hwy, 92663 | (949) 650-2688 | 1 | Yes | Private / Private | No | n/a |
| Nautical Museum | 151 E. Coast Hwy, 92660 | (949) 673-0300 | 1 | Yes | Private / Private | No | n/a |
| Adventures at Sea | 3101 W. Coast Hwy, STE 209, 92663 | (949) 650-2412 | 3 | Yes | Private / Private | No | n/a |
| Pavilion | 111 & 111 1/2 Marine Ave, 92662 | (949) 632-6363 | 5 | Yes | Private / Private | No | n/a |
| Hornblower Yacht Charter | 2431 W. Coast Hwy, 92663 | (949) 646-0155 | 6 | Yes | Private / Private | No | n/a |
| Orca Yacht Charters | 2901 W. Coast Hwy, 92663 | (949) 650-6722 | 6 | Yes | Private / Private | No | n/a |
| Fun Zone Boat Co. | 600 Edgewater Place, 92661 | (949) 673-0240 | 10 | Yes | Private / Private | No | n/a |
| Crow's Nest Marina | 2801 W. Coast Highway, STE 260, 92663 | (949) 574-7600 | 20 | Yes | Private / Private | No | n/a |
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| American Legion (use 15th St. public pier) | 215 15th Street, 92663 | (949) 673-5070 | 50 | Yes | Private / Public | No | 0 |
| Harbor Marina | 3333 W. Coast Hwy, 92663 | Unknown | 50 | Yes | Private / Public | No | 10 |
| Lido Village Marina | 3400 Via Oporto, STE 104, 92663 | (949) 675-8662 | 85 | Yes | Private / Public | No | 15-18 |
| Balboa Bay Club | 1221 West Coast Hwy, 92663 | (949) 654-5000 | 140 | Yes | Private / Public | No | no data |
| Balboa Yacht Basin | 829 Harbor Island Dr, 92660 | (949) 673-1761 | 171 | Yes | Private / Public | No | 4 |
| Bayside Village (De Anza)# | 300 East Coast Hwy, 92660 | (949) 673-1331 | 225 | Yes | Private / Public | No | 100 |
| Newport Dune Resort Marina & Launch# | 101 N. Bayside Dr, 92660 | (949) 729-1100 | 232 | Yes (2) | Private / Public | No | |
| Bayside Marina (Bellport)* (1additional pump-out stations proposed) | 1137 Bayside Dr, 92625 | (949) 644-9730 | 485 | Yes | Private / Public | No | 26 |
| 15th St. Public Pier | 15th St. | tbd | 0 | Yes | Public | No | n/a |
| Fernando St. Public Pier | Fernando St. | tbd | 0 | Yes | Public | No | n/a |
| Harbor Patrol | 1901 Bayside Dr, 92625 | (949) 723-1002 | 0 | Yes (2) | Public | No | n/a |
| Washington St. Public Pier | Balboa Pavilion - Fun Zone | tbd | 0 | Yes | Public | No | n/a |
| Blue Water Grill | to be determined | tbd | tbd | yes | Private/Private | No | n/a |
| Lido Peninsula | to be determined | tbd | tbd | yes | Private/Private | No | n/a |
| * proposed pump-out station | | | | | | | |
| #Proposed dump station | | | | | | | |
| Public means available for public use | | | | | | | |
| Private means not available for public use | | | | | | | |
| None/Private means no pump-out station, private marina | | | | | | | |
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| Name | Address | Phone | Slips | Pump Out On Site - Yes / No | Pump-out / Vessel terminal Classification | Dump Station on site - yes/no | Vessels under 26' |
|--|--|----------------|--------------|--|--|--|------------------------------|
| Davenport Marina* | 4052 Davenport Drive, Huntington Beach 92649 | (714) 840-6285 | 65 | No | none/Private | No | no data |
| Coral Cay Marina* | 27405 Puerta Real Suite 300, Mission Viejo 92691 | (949) 582-7770 | 58 | No | none/Private | No | 15 |
| Tennis Club Estates* | 2888 Bayshore Dr, 92663 | (714) 846-3225 | 63 | No | none/Private | No | 15 |
| Harbor Lane Condos | 13812 Goldenwest Street Suite 100, Westminster 92683 | (714) 846-6725 | 62 | No | none/Private | No | 21 |
| Portofino Marina | 1601 Bayside Dr, 92625 | (714) 377-9349 | 49 | No | none/Private | No | n/a |
| Peters Landing Marina | 16400 Pacific Coast Highway Suite 108, Huntington Beach 92649 | (714) 840-1387 | 325 | Yes | Public/Private | No | 10 |
| Huntington Marina | 4281 Warner, Huntington Beach 92646 | (714) 840-5545 | 190 | Yes | Public/Private | No | 12 |
| Sunset Aquatic Marina# (2 dump stations proposed) | 2901 A Edinger Ave Huntington Beach 92649 | (714) 846-0179 | 262 | Yes | Public/Private | No | 100 |
| Lifeguard Dock# | City of Huntington Beach | Unknown | 0 | Yes | Public/not a marina | No | n/a |
| * proposed pump-out stations | | | | | | | |
| #proposed dump station | | | | | | | |
| Public means available for public use | | | | | | | |
| Private means not available for public use | | | | | | | |
| None/Private means no pump-out station, private marina | | | | | | | |
| Private/Private means private pump-out station, private marina | | | | | | | |
| Private/Public means private pump-out station, public marina | | | | | | | |
| Public/not a marina means public pump-out station at a public dock | | | | | | | |

Table 3

Regional Board Staff Survey Results

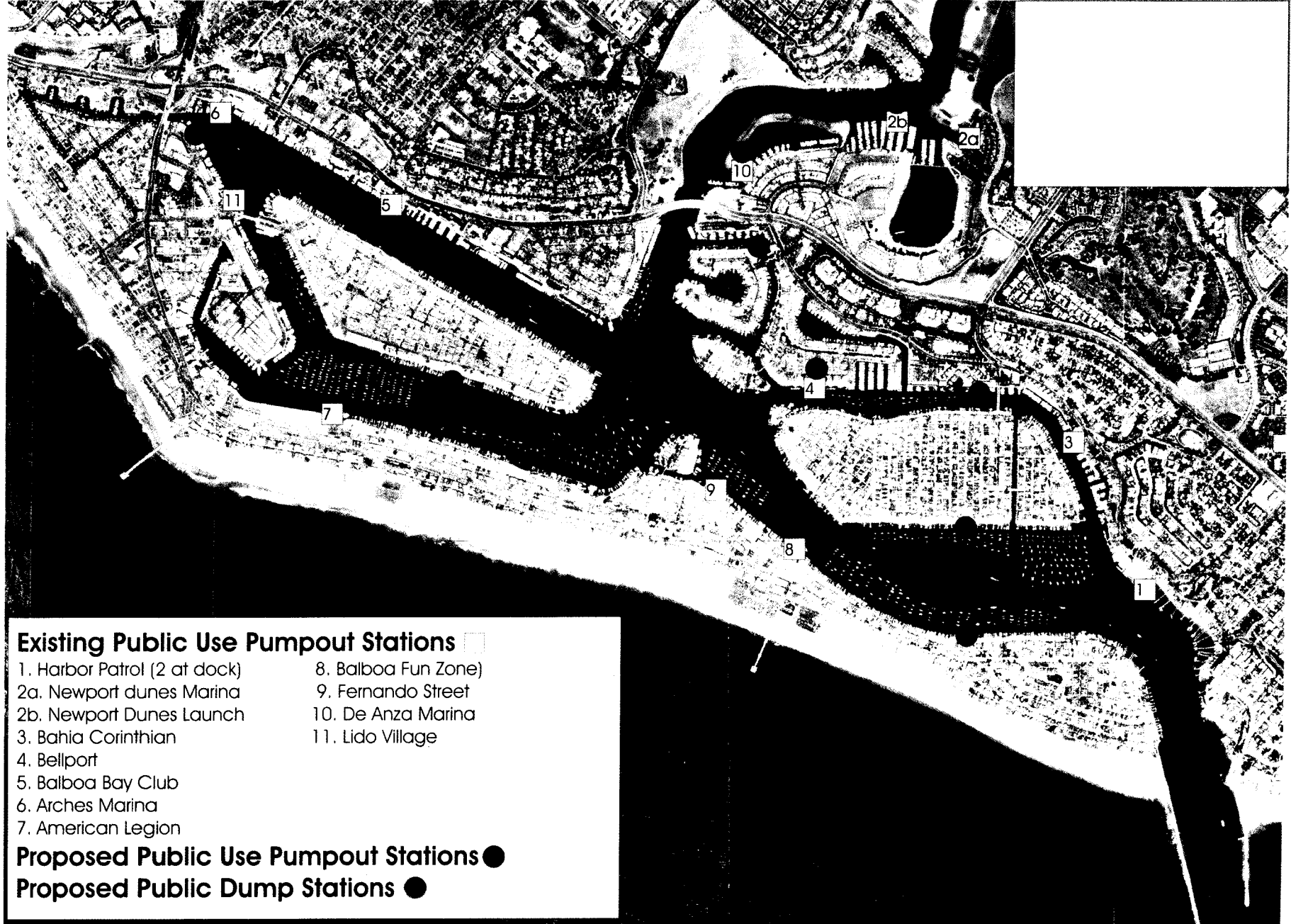
Huntington Harbour Pump-out Stations

| | Public Restroom | Pump-out Sign | Pump-out Station Operable | Operational Instructions |
|--|-----------------|---------------|---------------------------|--------------------------|
| Marina | | | | |
| Peters Landing (1) | yes | no | yes (duct tape on hose) | no |
| Huntington Harbour Patrol Access (Sunset Aquatic) (2) | yes | no | no | no |
| Lifeguard Dock | yes | yes | no (pump not hooked up) | yes |
| Weatherly Bay - Huntington Marina | | | | |
| Huntington Marina | | | | |
| -exposed wires | | | | |
| -nozzle broken | yes | yes | no (pump not hooked up) | yes (weathered) |
| -valve broken off | | | | |
| -weathered | | | | |

Newport Bay Pump-out Stations

| | Public Restroom | Pump-out Sign | Pump-out Station Operable | Operational Instructions |
|-------------------------------------|-----------------|---------------|---------------------------|--------------------------|
| Blue Water Grill (no access) | yes | yes | | yes |
| Newport Dunes Resort Marina | yes | yes | yes | yes |
| if pump fails, call | | | | |
| (949) 644-3034 | yes | yes | yes | no |
| map | | | | |
| Newport Dunes Launch Ramp | | | | |
| accessible | | | | |
| Bayside Village | no | yes | yes | yes |
| sign is in bad shape | | | | |
| Balboa Bay Club | no | yes | yes | no |
| Harbor Marina | no | yes | yes | yes |
| Lido Village | yes | yes | yes | no |
| Lido Peninsula | yes | yes | yes | no |

Newport Harbor Existing and Proposed Public Use Pumpout and Dump Stations



Huntington Harbour Existing and Proposed Public Use Pumpout and Dump Stations

